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ORIGINAL LECTURES.

THE THERAPEUTIC VALUE OF ELECTRICITY IN GYNECOLOGY.

A Lecture, delivered by invitation, at the New York Polyclinic, May 21, 1889.

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GENTLEMEN: I am here to-day by invitation of our friend, Dr. A. M. Jacobus, to give you the benefit of my experience with electricity in gynecology. Of the three forms of electricity, I will confine my remarks to galvanism. It will, of course, be impossible for me to do more than give you a general outline of the principles involved and the methods of administration; but I will endeavor to make my remarks as practical as possible, in order that you may be able to make use of them in cases arising in your every-day practice.

We recognize in gynecology a distinct active and inactive pole; the active pole being that pole applied to the internal surface of the body, in the vagina, within the uterus, or into the tissues by puncture. It is from this pole that we expect our effect. The inactive pole is that pole applied to the external surface of the body, having for its object only the completion of the circuit. From this we expect no effect, and we get none, if we except the mild counter-irritation produced by the hyperæmia of the surface which occurs under the pad when strong currents are used. You will understand, then, that either the positive or the negative pole of the battery may be the active pole, according to your selection

It is very important for you to understand that the difference in the therapeutic action of the two poles is as great as the difference in their chemical action. You know, of course, that oxygen is generated at the positive pole, and hydrogen at the negative pole; that the positive pole attracts acids from the tissues, while the negative attracts alkalies. In a general way, the positive pole is known as the coagulating pole, while the negative is the liquefying or fluidifying pole. But there is a distinct polar and inter-polar action of the current, the polar action being that action which takes place at the point of contact of the active pole with the tissues, and the inter-polar action being the influence exerted by the current in its passage through the tissues, the greatest action being manifested in proximity to the active pole. These different actions may be more readily appreciated by you, and will be more convenient for you in every way, if they are put in tabular form, and for that reason I have had them written out on the black-board for your future guidance. The positive pole may, then, be divided into its inter-polar and polar action. In its inter-polar action it is *anodyne, sedative, anti-congestive, denutritive, anti-hemorrhagic* or *hæmostatic*, and *alterative*. It acts by contracting the capillaries, will drive out congestion, allay inflammation, and will relieve pain. In its polar or local action it is *styptic* with moderate intensities, and *caustic* and *hæmostatic* with high intensities. As I have said before, it is the coagulating pole, and it is, therefore, useful for arresting hemorrhage when applied intra-uterine. The negative pole in its inter-polar action is *stimulating, congestive, derivative*, and *alterative*, favoring absorption by increasing the blood-supply. In its polar action it is markedly *electrolytic, liquefying*, producing active chemical decomposition, and *caustic* with much lower intensities than the other pole. It is particularly useful in removing obstructions in the cervical canal with moderate intensities, having even with low intensities a decided electrolytic effect.

I have said that the negative pole is the caustic pole. It is, in fact, generally known as the more caustic pole, but it is so only when we refer to the bare or unprotected electrode used within the uterus. I have found that with the protected electrode used in the vagina the positive pole is the more caustic—that is, I have been able to use, in cases which were suitable for it, 200 milliampères with the negative pole in the vagina for five minutes without a caustic effect, whereas, with the positive pole it is impossible to use in the vagina 100 milliampères for the same length of time without producing active cauterization. When a current of that strength is used, I advise that the electrode be dipped in a solution of bicarbonate of soda, which will neutralize the acids that collect at the point of contact and prevent the usual caustic action. The different local actions of the poles may be modified or varied at the will of the operator, by increasing or diminishing the current, or by lengthening or shortening the duration of the application.

You have in electricity, as you will see, an agent capable of exerting a remedial influence over almost every form of disease of the pelvic organs, an agent possessing an infinite capacity for modification, according to the method of its application. In this respect it reminds me of a certain musical instrument, the cornet, which, though it has only three keys, may be made to produce any note at the will of the musician.

An intelligent interpretation of these different actions of the two poles of the battery, forms the basis of electrical treatment, and you must constantly bear them in mind. Experience will, of course, increase your ability for a proper selection of the pole to be used. Take my advice and do not attempt the application of electricity to diseases of the pelvic organs until you have thoroughly mastered the subject—until you are able to apply it with a definite object in view. Make up your mind accurately as to the condition present, and apply the remedy so as to meet the indication. In this way alone can the value of electricity be determined and its future usefulness be advanced, for failure from improper use, by those who do not understand it, is more likely to be attributed to the inefficiency of the agent than to inexperience in

manipulation. *Ignorance is the greatest enemy of progress.* And this especially applies to the use of electricity. If you will take the trouble to investigate the subject, you will find that the opponents of electricity are those who are utterly ignorant of its action and uses. Those who have pretended to investigate the subject with a view of determining its value, have done so under protest, knowing nothing about it, rather desiring its failure than its success, and, failing, they have damned the agent instead of themselves. See that your failures do not produce the same effect.

Now, the position of the electrodes is sometimes of great importance. When you desire the inter-polar influence of the current you must place your internal electrode and your external electrode in such relation to each other that the tissues under consideration or treatment will be immediately included between the two poles; that is to say, if you are treating the diseased condition of one side of the pelvis, place your vaginal electrode at the most accessible place on that side of the vagina, and your external electrode on that side of the abdomen, thus concentrating your current to one side rather than disperse it over the whole surface of the abdomen externally, for by this dispersion you would lose much of the current as well as the effect. In like manner, if it is more convenient to place the external electrode on the lower part of the spine the position must be such that the diseased structures will be included between the two poles. For electricity in passing from one pole to the other to complete the circuit will, as a rule, take the most direct route in spite of the resistance encountered. But when you desire only the local action of the active pole the position of the external electrode is a matter of indifference.

The intensity of the current to be used varies with the condition present and the object to be attained. This, with the duration and frequency of the applications, must be learned by clinical experience. It would be impossible to outline definitely here the intensity of the current and the duration of the application necessary in every case, but in studying each condition I will endeavor to indicate this to you clearly.

As to the meter, this is always a necessity to insure accuracy. Would you think of giving a dangerous drug without knowing accurately the dose you were administering? The meter is necessary not only to insure the safety of the patient, but in order that you may know certainly what you are accomplishing or what you are doing. Do not think that you can work without one, for it is a matter of too much importance. It is necessary, if for no other reason, to show that your battery is working properly, that your conducting cords are all right, and your electrodes in order, and above all, to show that the patient is not deceiving you as to her impressions.

In regard to the form of battery. In my experience the Leclanché apparatus gives the most steady and satisfactory current, but all of you may not be able to possess a cabinet battery of Leclanché cells, and if you select an acid battery, choose one with small elements. The batteries with large elements produce too furious an action—too caustic an action—besides being unpleasant to the patient in the increasing of the current cell by cell. The number of cells may be increased by means of the wince apparatus—that is, the keyboard is fitted with the wince or crank for increasing the current—for the plug and socket arrangement is too inconvenient for the operator and too unpleasant for the patient. Although they may have a double cord to prevent an interruption or break in the current, the patient still feels the increase of each cell more perceptibly than she does from a wince battery.

Of the apparatus for the administration of electricity I will begin by showing you the external electrode. So far as my experience goes the clay pad of Apostoli, with certain modifications, is the best which I have used. The objections that have been made to it, that it is unclean, unwieldy, and uncomfortable to the patient, may be readily overcome by these modifications which I have made. The large size usually recommended for these applications is by no means necessary, except when very high intensities are used, as in the puncture of fibroid tumors. Smaller sizes are more convenient and as readily acceptable to the patient. For instance, the size which I show you, six by eight inches, may be used with

FIG. 1.

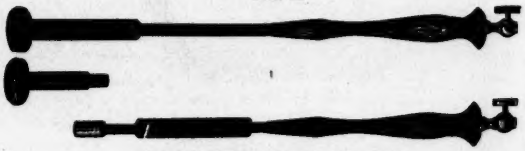
The external clay electrode, showing surface to be applied to the skin.

a hundred milliampères of current without producing any inconvenient or unpleasant action upon the skin, and even smaller sizes than this may be used for smaller currents. This is made of ordinary potter's or moulder's clay rolled out with a rolling-pin upon a flat surface after having been first mixed to the consistence of putty. It must be perfectly smooth and of a uniform thickness. In an electrode of this size it may be three-quarters of an inch thick. It is then cut into the desired size and shape and a metallic plate with binding-post attached pressed into the back of the pad—merely pressed into the clay, not imbedded. It is covered with a layer of absorbent cotton, taking care to have the binding-post penetrating this and the other layers. It is then sewed up in linen crash, the seam always being on the back of the electrode, so that the surface to be applied to the skin may have no unevenness and be perfectly smooth. Afterward it is backed with rubber cloth, which prevents wetting the clothing of the patient. The absorbent cotton, beside serving to keep the clay moist when not in use, forms a protection which prevents the clay from oozing through and soiling the surface to which it is applied. This may be kept warm in an ordinary pan over a small oil lamp and the unpleasantness of the ordinary cold clay pad avoided. For the sake of convenience I prefer in some of the pads to have the connecting post at the end, which allows it to be slipped up under the clothing and avoids the necessity of loosening the clothes. In applying electricity with a view to its inter-polar action it is often desirable that the size of the external electrode should be limited as much as possible, or as much as the sensation of the patient will allow without inconvenience, in order to concentrate its action.

The ordinary vaginal electrode I do not use at all, because it cannot be protected so as to prevent a caustic

action upon the mucous surface. This is on account of the size of the ball and the metal of which it is made. I use with the negative pole a flat metallic disk, a little smaller than the ordinary penny, and this I cover with potters' clay moulded round it. Then I cover it with a very thin layer of absorbent cotton, which, in its turn, is covered by absorbent gauze held in position with a rubber band round the shaft of the electrode. This is used with the negative pole only and is easily kept moist. I have been able to use with the negative pole from fifty to two hundred milliampères through the vagina with this electrode. It would not do to use this electrode with the positive pole because of the metal, which would be corroded by the acids after a few applications, perhaps after the first. I therefore use with the positive pole an electrode with a disk made of carbon, which is not affected by acids. But the connection with the metallic rod of the handle must be removed sufficiently far away from the disk to prevent corrosive action at the point of contact with the carbon, which would interfere eventually with the passage of the current. In

FIG. 2.



The carbon-tipped vaginal electrode.

this electrode the connection is at least an inch and a half or two inches away from the disk. The carbon tip consists of a disk with a spindle at least two inches in length. This I cover in the same way with potters' clay, absorbent cotton, and gauze, and it may then be used either with the positive or the negative pole. At the same time, however, it is intended more particularly for the positive pole. When it is to be used, an additional covering of absorbent cotton is placed upon it and moistened. After it has been used once this outer layer of cotton is removed and replaced by a fresh piece for the next application. But the carbon is such a good conductor of the current that you are apt to get more caustic action than you would from a metallic electrode of poorer conducting quality, and for this reason, with currents of more than fifty milliampères, I dip the electrode in a solution of bicarbonate of soda previous to its being used.

You will readily see that it would be very unpleasant to the patient to have introduced an electrode of this size into the vagina along the finger as a guide unless there was considerable relaxation of the vulva. It therefore became necessary for me to devise some instrument to facilitate the introduction of the electrode. Besides the inconvenience and unpleasantness to the patient of passing the electrode along the finger, the hand of the operator is soiled, and it becomes necessary for him to delay long enough to cleanse the hand if it is needed for turning on the current. The facility of introduction of intra-uterine electrodes is much enhanced by exposing the cervix to view, and is to be preferred to the method of introduction along the finger as a guide, both because it allows more delicate manipulation, and because it is safer for the patient. To overcome these difficulties I have devised the instrument which I show you. It is a modification of the Sims speculum. Of course, when your patients may be placed in the lateral position for applications, the Sims instrument would answer, but when the applications are to be made in the dorsal position the Sims speculum would be unsuitable, and the ordinary bivalve instruments in use do not permit sufficient expansion at the vulva to allow the introduction of this electrode without considerable inconvenience to the patient.

FIG. 3.

The speculum.

This instrument, as you see, consists of two Sims blades joined together by a very short shank and in opposite directions, forming the shape of the letter S. It may be used in either the dorsal or the lateral positions. When used in the lateral position in place of the Sims instrument, it is more readily held by the nurse as well as by the physician. It is more convenient for the physician if he is using it without a nurse than the Sims instrument. It is self-retaining without the support of the hand. In the dorsal position it may be used likewise without a nurse or without any assistance from a depressor unless there is unusual relaxation of the anterior vaginal wall, and, when this interferes with a view of the cervix, I use what I call an elevator of the anterior vaginal wall. It is made of hard rubber and

FIG. 4.

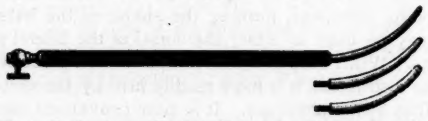
Elevator for the anterior vaginal wall.

curved in an S shape, so that it may fit over the pubis and be held with one finger of the nurse. If the physician is operating without the assistance of a nurse, all that is necessary for him to do is to ask the patient to hook her little finger into the upper curve of this elevator, and she can render him, with little or no inconvenience, all the assistance he requires. When used in

the dorsal position, the speculum is held by the physician in the left hand and the retraction of the perineum is done by him. In order to get this left hand out of the way I usually pass it between the right foot and buttock of the patient, and in that way hold the speculum. In my every-day practice I have come to rely upon this instrument, and use it in preference to the Sims. The advantages of a speculum of this construction are so numerous that, although I have always four or five of the Sims instruments on my table, I continually find myself turning to this for any work that I have in hand. It is now made of hard rubber as well as metal, to avoid the necessity of withdrawing it during the application.

For use with the negative pole almost any metal will be suitable for the electrode if the surface is kept clean and bright. Usually they are made of brass or copper, nickel plated. For use with the negative pole for applications to the cervical and uterine canal, I have devised an instrument which I prefer to the ordinary bulb electrode in general use for this position. It consists of three metal tips, their sizes being 13, 15, and 17 of the French scale. The tips are nearly two and a half inches long, of the usual curve, and are conical at the point. They screw into an insulated handle at a decided shoulder. I consider this shoulder very important, as, when we have penetrated the distance of this shoulder, we are certain that we have gone through the internal os and

FIG. 5.



Electrode for the application of negative galvanism to the cervical canal.

we need go no further. In this way we avoid the contact of the tip with the fundus of the uterus. I prefer this, I have said, to the ordinary bulb electrode because it is more easy of introduction and because the current is distributed over a greater surface and you do not get such intensified action at one spot. This is used with the negative pole for flexions and obstructions in the cervical canal. In applications of negative galvanism to the endometrium smaller tips may sometimes be necessary, but ordinarily the smallest sized tip answers every purpose.

In operating with the positive pole we must have a metal or substance which is not acted upon by acids, and platinum and carbon are the only substances heretofore used for this pole. Aluminum may be left out of the question, as it is too easily acted upon by high intensities with the positive pole. Platinum is very expensive, and carbon is absorbent, and for this reason cannot be rendered thoroughly aseptic. Beside, the carbon electrode must necessarily be straight. I have used for the past six months electrodes made of wrought iron and steel protected by a process of treatment which renders the metal absolutely non-corrosive and non-attackable by acids for a considerable length of time.

I show you here the tip (two and a half inches long) which I use; and have been using since January, and there is, as you see, very little action commencing upon the metal. Electrodes made of this material and treated by this process are so inexpensive that they may be thrown away when there is the slightest sign of corrosion upon them, but they will resist for a long time, and, besides, it is a better conductor of the current than platinum. This electrode, with a tip two and a half inches long, is intended for applications of positive galvanism to the entire uterine canal at once.

When it is desired to make the application only to the cavity of the uterus, it is necessary to have an electrode shorter than this, and for this purpose I have had an electrode made of the same material, three-quarters of an inch in length, which may be screwed into an insulated handle which is curved. This is fashioned after the Apostoli carbon electrode, and, besides the advantage of cleanliness, it is curved, and for that reason may be more easily introduced into the canal. It would be quite impossible to introduce the straight Apostoli carbon electrode into the canal in some cases, and very inconvenient to introduce it in all cases. It is more natural to have an instrument which is of the proper curve, and this can only be done by having a metallic tip upon a curved shaft. This tip should be of different sizes, 12 to 16 French, and the size should be selected with a view to the size of the uterine cavity. A tip should be used which would fit into the uterine cavity so as to be in contact with the whole surface to which it is applied; that is, it should not fit loosely into the uterus. For this reason different sizes are necessary. The tips are made three-quarters of an inch in length, so that the uterine cavity, exclusive of the cervical canal, may be cauterized in two sections. Passing it up to the fundus, it is left there long enough to produce the action you desire, and then

FIG. 6.

Electrode for applications of galvanism to the uterine cavity.

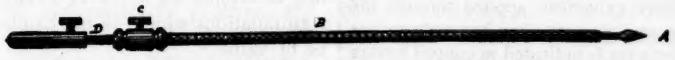
it is withdrawn the length of the tip that is marked upon the shaft of the electrode, and the second section is cauterized. When the whole cavity is thus cauterized it may be removed without producing any effect upon the canal of the cervix. This is usually the most sensitive part of the whole canal, and will not tolerate the intensities which may be applied to the cavity, besides, atresia might follow.

I show you here also an ordinary puncturing needle, which is screwed into an insulated shaft or handle. But this is an instrument which I should not advise to be used except by experienced hands—I mean experience in application—for, as you will see, it has no shield or guide to limit the penetration. I would advise beginners (and prefer even myself in many instances) to use a needle with a sliding protection upon the shaft fixed by a screw so that a limit to the amount of penetration

may be made. In this way you need not go through the tumor, but stop when you have penetrated it a certain distance, an accident which might occur if you used a needle without this protection.

I show you here an aspirating trocar and canula. This, has a protecting sliding covering of catheter material and a screw adjustment to limit the amount of penetration, and is used for tapping small cysts and hydrosalpinx, and pyosalpinx when accessible through the vagina. I would not have you infer, however, that I advise its use in all cases. It is, in fact, only applicable in certain conditions. I tap the sac with this trocar and canula, withdraw the trocar, and empty it of the fluid.

FIG. 7.



Puncture needle with sliding cover to limit penetration.

FIG. 8.

Aspirating trocar and canula.

The trocar is then reintroduced and the attachment made with the battery, with either pole (usually the negative pole is preferred), with the current turned on (from fifty to one hundred milliampères) thus cauterizing the tissues which are penetrated by the canula, and in this way avoiding the chance of the absorption of any septic material. Beside, the action of the current upon the collapsed sac tends to prevent the reaccumulation of the fluid. I seldom find it necessary to tap the sac more than once. While it may be advisable to do this in most cases of hydrosalpinx where easily accessible, it is not always wise to do it for pyosalpinx. I prefer to drain a pyosalpinx through the uterus. Frequently I have been able to accomplish this by applications of strong positive galvanism to the entrance of the tube into the uterus (into the cornua of the uterine cavity on that side), by means of a small platinum-tipped electrode the size of an ordinary uterine sound and not more than a half to three-quarters of an inch in length. In several instances I have been able to drain the pyosalpinx in this way through the uterus intentionally. I first discovered this accidentally after applying a current of a hundred milliampères to the cornua on the diseased side; the withdrawal of the electrode was followed by the escape of a tablespoonful of pus, and the patient experienced immediate and permanent relief. Several times since this accidental discovery I have accomplished the same thing, but I cannot say definitely that it can always be accomplished. When this cannot be accomplished and when the condition is appropriate for it the tube may be tapped through the vagina.

When a pyosalpinx is tapped by the vagina it is best always to wash the cavity of the tube thoroughly through the canula with an antiseptic solution, generally either with an aspirator or with the surgical pump, before the galvanism is applied to the track of the canal. Permanent drainage may be secured through this cauterized drainage track and the cauterization prevents the absorption of septic material in its passage along this opening. The opening remains patulous for several days, usually as long as there is any necessity for drainage. If closure occurs it is an easy matter to pass the trocar again, or a small blunt electrode along the track while connected with the negative pole of the battery. It will work its way along the track made previously and enter the sac, reopening it for drainage.

The diseases which I have found amenable to treatment by galvanism and which have yielded very satisfactorily to the treatment, I may say often more satisfactorily than to any other form of treatment known to me or heretofore used by me, are: Uterine flexions, obstructions in the canal, hypertrophy of the organ, metritis, endometritis, menorrhagia and metrorrhagia, chronic pelvic cellulitis, exudations and adhesions, hæmatoma and hæmatocele, ovaritis and salpingitis, and certain conditions of hydrosalpinx and pyosalpinx.

I have not yet quite made up my mind that electricity is proper for actual stenosis. I prefer to dilate first and maintain the dilatation in the beginning with the intra-uterine stem worn for one week only while the patient is confined to bed, and subsequently by the use of negative galvanism to the canal. In treating flexions and obstructions in the canal we use negative galvanism as a rule, and the strength necessary will vary from ten to fifty milliampères, according to the condition and chronicity of the case. Cases of chronic hypertrophy are likewise treated by negative galvanism. Chronic metritis and endometritis are usually treated with positive galvanism, but there are conditions which call for treatment by the opposite pole. Menorrhagia and metrorrhagia may be treated by positive galvanism with currents varying from fifty to one hundred milliampères used intra-uterine. Chronic pelvic cellulitis, exudations and adhesions of long standing, after all inflammatory action has subsided, yield readily to treatment by negative galvanism by the vagina, and it is in these conditions that I maintain strong currents are required. I frequently reach two hundred milliampères in the treatment of these conditions and find that exudations and adhesions melt away like ice under the rays of the sun. Of course, it would not do to begin the treatment of a case by using such high intensities. Beginning with fifty milliampères, treating the case every second or third day, and gradually increasing the dose, the tolerance of the current may be increased, and the high intensities, when reached, will produce no more discomfort or inconvenience to the patient than the small dose did at the beginning. As the menstrual period approaches if there is a tendency to over-menstruation the intensity must be lowered, and in beginning the treatment again after menstruation a smaller dose must be applied and again gradually increased. Fixation of the pelvic contents is to be treated in the same manner. A good rule to follow is to use positive galvanism in the vagina for its inter-polar action as long as there is any active inflammation, or as long as the vaginal roof is

sensitive to ordinary pressure. When the condition is chronic, or when the roof is sensitive only to deep and sudden pressure, negative galvanism is indicated.

Hæmatoma and hæmatocele afford a striking illustration of the prompt remedial influence of electricity. Hemorrhage, in a case seen early, may be controlled to a certainty by positive galvanism applied through the vagina. When the case is seen after hemorrhage has ceased, positive galvanism is indicated to control further hemorrhage, to contract the clot which has formed, and to hasten the separation of the serum. If the separated serum is of considerable quantity and produces pain from pressure, it may be withdrawn by trocar and canula in the same way that I described the withdrawal of the hydrosalpinx, but positive galvanism must be used immediately afterward to contract the capillaries and prevent the recurrence of hemorrhage and to favor the closure of the sac which contains the fluid. Positive galvanism must be used, however, for some time subsequently to produce a still further contraction of the clot, and as soon as all sensitiveness has subsided, and all inflammatory action surrounding the effusion has been subdued, negative galvanism may be applied through the vagina to hasten absorption, or, if the case is an obstinate one, absorption may be hastened by negative galvano-puncture of fifty to one hundred milliampères.

Small cysts and fibro-cysts of the ovary and in the broad ligament frequently yield readily to negative galvano-puncture through the vagina, some of them requiring only one puncture for their complete removal.

Fibroid tumors of the uterus are reduced in size by applications of strong currents by galvano-puncture. The growth of the tumor is arrested, it is lessened very materially in size, and frequently is reduced so much as to give no further inconvenience to the patient. I have been thoroughly satisfied so far with my experiments with electricity in the treatment of fibroid tumors. Very large and hard tumors of long standing yield slowly and demand strong currents, frequently from two hundred and fifty to five hundred milliampères, and, of course, necessitating the use of an anæsthetic. In many of the cases I have been able to puncture at my office and send the patient home in the carriage. I should not care to advise it in all cases. I prefer to put the patient to bed immediately after the operation and keep her there until all unpleasant symptoms have subsided. Where hemorrhage occurs from the uterine cavity in connection with these fibroids, we treat them by positive galvanism to the endometrium, as advised by Apostoli, administering one hundred to one hundred and fifty milliampères, cauterizing the whole uterine cavity.

243 WEST 54TH STREET.

ORIGINAL ARTICLES.

THE SURGICAL TREATMENT OF THE TONSILS AND ALLIED BODIES WHEN A CAUSE OF PHARYNGEAL IRRITATION.

BY HARRISON ALLEN, M.D.,
OF PHILADELPHIA.

ON a former occasion[1] I invited attention to the subject of pharyngeal irritation which appeared to be excited and maintained by small tonsils, and by the glands below the tonsils on the side of the pharynx. My studies in this direction, since the date of the paper named, have tended to confirm the importance of the conclusions therein stated, and I venture to submit the following detailed account of the manipulations which, in my hands, have proved to be of value.

THE TONSILS.—When the symptoms of pharyngeal inflammation do not subside by the use of gargles and sprays, or after internal medication, it is probable that a local cause exists which will yield to surgical means only. In order to determine the exact condition of the tonsil, the following method of examination is recommended. A tongue depressor is placed upon the tongue and given to the patient to hold. The mouth is opened to its widest extent, and an aneurism needle (the adjustable end of which has been firmly soldered on to the shank or handle) inserted behind the palato-glossal fold, and gentle traction made forward and slightly outward. To a patient who is untrained it is quite likely that gagging will ensue upon this manipulation. With the exercise of a little care, however, the irritability may be so far overcome as to enable the tonsil to be freely seen. Very often no trace of a tonsil is discerned until such a manipulation is resorted to. Tonsils which are concealed between the palato-glossal and the palato-pharyngeal folds of the pharynx are very apt to give rise to irritation. Their condition can be determined in no other way known to the writer, than the one indicated. It is an interesting fact that the act of gagging itself rather assists than otherwise in the examination, since a disposition exists for the tonsil to be turned slightly upon itself. If the patient remains composed and does not move the shoulders backward, both he and the physician can remain indifferent to the gagging as long as it does not excite vomiting.

The tonsil is ordinarily composed of two masses, an upper and a lower. They might be compared to two beans lying within a pod; the two portions lying in such wise that the lower is in advance of the upper. The spaces between them are often found occupied by pellets of solid secretion, which, owing to the unfavorable position of the folds, have been unable to escape into the throat. Such masses are persistent causes of irritation, and may themselves be the main cause of pharyngitis and laryngitis. They are, in most instances, easily removed by a scoop held in the left hand, while the right is engaged in drawing forward, with the retractor, the anterior fold. The pellets lying between the tonsil-masses may be embedded in their substance or be lodged in pockets. Such is especially the case with the upper tonsil-mass, which may lie far up in the tonsillar space and be adherent by all its surfaces, except the median, to the surrounding membranes.

[1] The Tonsils and Pharyngeal Irritation, THE MEDICAL NEWS, July 8, 1882, p. 31.

Secretion so retained is best removed by the galvanic cautery, an electrode being used which retains a very small platinum loop projecting from the end of the insulated shaft.

I have notes of three cases in which the upper tonsil-mass was the seat of a small abscess which gave rise to extreme distress of the pharnyx, and induced laryngitis which persisted for some months after the tonsillar condition was entirely corrected.

The lower tonsil-mass may be adherent by synechial bands to the palatal folds. The union to the anterior fold is not, as a rule, accompanied by distress, but that with the posterior fold it is invariably the source of great irritation, which in my judgment remains unrelieved until complete division of the united surfaces is effected. The same remark is true when the posterior surface of the lower mass is adherent to the outer wall of the pharynx.

Not infrequently, the lower mass is retroverted; that is to say, it is turned back on itself in such a manner that the surface which should point toward the lumen of the pharynx is directed outward, and is in contact either with the posterior fold or the lateral wall of the pharynx. In these conditions it is inevitable that each movement of the palato-pharyngeal muscles teases the entire pharynx. To correct the evils of the false union, above named, all bands and surfaces of adhesions must be freely divided, and the cut surfaces seared so as to prevent the reëstablishment of their union. When the pharynx is excessively irritable a species of trismus appears to be excited, which often makes it difficult to open the mouth for a distance sufficient for the easy manipulation of instruments. In many individuals, this disposition is almost impossible to overcome. Another difficulty is recognized in the gagging which ensues in the use of the knife or electrode. Especially is this the case when the tonsil is to any degree retroverted.

The instruments which are needed for the separation of the bands of false union are few and simple. The manipulation attending their use is much the same as in the removal of retained tonsil secretion. The tongue being depressed by the patient, and the mouth held open as wide as possible, the retractor is made to expose the lower tonsil-mass with the right hand, while the left hand carries a pair of Tieman's bullet forceps to the tonsil, and a portion of the gland is firmly seized. The right hand now relinquishes the retractor, and the tonsil being drawn out into the throat as far as is practicable, a bistoury is taken by the disengaged right hand and employed to separate the surfaces in any desired direction. In some cases a tenaculum can be substituted for the bullet forceps, but in order for it to prove effective the shank, which bears the hook, must be turned at a right angle for a distance equalling the length of the hook itself. This enables the operator to insert the tenaculum within the tonsil-mass by simply rotating the instrument within his hand. The instrument is precisely similar in plan to the perforated needle used by J. Marion Sims. The employment of the galvano-cautery is often made compulsory when the irritability of the parts or the intractableness of the patient is very great. The electrodes should be of small size and inserted in the recesses or pockets of the tonsils, small portions only being destroyed at a time.

THE INFRA-TONSILLAR GLANDS.—These bodies, which are glandular in character and which lie on the sides of the pharynx below the tonsil, are often enlarged and serve as sources of irritation when the tonsil itself is healthy. From the proximity of the more inferiorally placed bodies to the epiglottis, the infra-tonsillar glands may be an exciting cause to laryngeal cough. These bodies are conveniently named the infra-tonsillar glands. Resisting as they do all attempts to reduce their size by medication, it often becomes necessary to destroy them. This is best done by the galvano-cautery. Surfaces ranging in size from one to four millimetres may lie in clusters or groups between the lower margin of the tonsil and the epiglottico-pharyngeal fold. One or two of the bodies can be safely destroyed at a sitting. As a rule, the parts can be exposed by depressing the tongue, but, if in exceptional cases this is not practicable, the tongue may be held by the patient in a position for laryngoscopy, and the electrode applied to the gland.

A CASE OF CHOLELITHOTOMY, WITH REMARKS UPON THE SURGICAL TREATMENT OF CHOLELITHIASIS.[1]

BY MILES F. PORTER, M.D.,
OF FORT WAYNE, IND.

MRS. J. L. P., æt. fifty-two years, mother of four children, of English birth, but a resident of this country for more than forty years, and of Arkansas for the past three years, consulted me the latter part of January last. She passed the menopause normally four years ago. In the past two years she has lost sixty pounds in weight, though, aside from a few chills of ague and a very tired feeling in the morning, she has not been sick.

She suffered at times from "wind in the stomach," but not to give rise to more than discomfort. About three weeks prior to her visit to me she had one of these attacks, and to relieve it she was rubbing her stomach, as was her custom, when she discovered a tumor, for which she consulted me.

A careful inquiry failed to elicit from her any further history than that given, and nothing of importance in her family history; but her sister stated to me that she (the patient) had frequently suffered, in years gone by, with very severe pain in the belly, and that she was often jaundiced, while I remember,

[1] Read before the Indiana State Medical Society, May 2, 1889.

myself, having given her, two years ago, a hypodermatic of morphia for a pain in the belly, but, as there was another case in the house at the time interesting me very greatly, I accepted her diagnosis of "wind colic." Whether or not she was jaundiced after that attack, I do not know.

The following notes are taken from my record book: Complexion rather muddy, bowels constipated, flesh flabby, abdominal walls lax but rather fat. There is in the right hypochondriac region an apparently solid tumor, about size of fist, which moves with the liver in respiration, which can be moved latterly and upward to the right, but cannot be made to cross to the left of the *linea alba*, neither can it be moved downward much. The lower border of the growth can be grasped with the hand, but am not able to separate it from the liver. The percussion note over the tumor is dull. Handling gives distress in the left hypochondriac region and epigastrium, but no pain. The ascending colon is to the outer side of the tumor. She has an anal fistula, which has existed for seven years, at times closing, only to open again, and piles which date back two years.

My diagnosis is a solid tumor connected with the liver, and probably the gall-bladder filled with calculi. I explained to the patient my diagnosis, together with the uncertainties connected with the diagnosis of such cases without opening the abdomen. She was very loath to return to Arkansas, where she would be miles away from a competent surgeon, without at least knowing the exact nature of her trouble, and, on being told by me that the mortality-rate of exploratory operations was not over two per cent., she decided to have it done, and said that "she knew there was something in there which had no business there," and that she wanted it removed if I concluded, after opening the belly, that the chances of life and death would be even.

The operation was accordingly made on the 10th of February, in a private house, in a room especially prepared, and with the assistance of Dr. H. McCullough, Dr. T. J. Dills giving the ether. The incision, three inches long, was made over the most prominent part of the tumor and parallel with the *linea alba*. The tumor being exposed, a small trocar and canula was inserted into it, and, on removing the trocar, a small quantity of muco-pus escaped, but no stones were felt, and the canula was therefore withdrawn and the trocar alone inserted, which immediately came in contact with the stones. Two strong silk threads were now inserted in the most prominent part of the tumor, parallel with each other and about half an inch apart, by which it was drawn well up to the abdominal walls and held there by Dr. McCullough while the incision was made between the threads and the stones removed—ten in number and about the size of chestnuts. The peritoneum was protected by sponges. The gall-bladder was much thickened, measuring about $\frac{3}{16}$ of an inch. The stones were extracted with a pair of uterine dressing forceps, aided by the finger and a blunt aneurism needle. The latter was found to serve an excellent purpose in dislodging the last stone, which was firmly impacted in the neck of the bladder, and I should not want to commence another like operation without this or a similar instrument at hand.

Not being positive that the peritoneum had entirely escaped contamination, two glass drain tubes were placed, one at the side of the gall-bladder from which some adhesions had been torn, and one which reached lower in the general peritoneal cavity. A small rubber tube was placed in the gall-bladder, the latter stitched to the abdominal walls, and the rest of the incision closed with interrupted sutures of iron-dyed silk. She was under ether about two hours. Shock was slight. The glass tubes were cleansed every two hours by suction, and removed at the end of twenty-four hours, as they were doing no good. There was considerable nausea and vomiting from the ether, but this stopped within the first twenty-four hours.

The recovery was uninterrupted save by vomiting, which occurred once on the twelfth day, and was due to eating heartily of farina pudding with raisins in it. No pain of consequence was complained of. With the exception of two seidlitz powders, no medicine was given. Uneasiness from gas was relieved by the daily use of enemas and the use of the rectum tube. After the first twenty-four hours the bile flowed through the tube abundantly, though there was at no time any leakage of bile of consequence around the tube, notwithstanding the rather long incision it was necessary to make in order to remove the calculi. The patient slept well from the first. A superficial stitch was removed on the fourth day, one of the deep parietal ones on the fifth, and, as supposed, all of them on the seventh day, though two more were found and removed on the tenth day.

The dressings were of carbolized gauze and absorbent cotton, and were changed three or four times daily with a view to keeping the wound dry should leakage of bile occur.[1] There was no pus formation, and all of the wound, except that represented by the gall-bladder, healed by first intention. By the end of seventeen days the wound was healed up to the tube, and it was removed. The discharge of bile gradually grew less, and the fistula closed on the thirty-seventh day and remained closed for ten days, when it opened during an attack of vomiting from acute indigestion, and remained open for two days, since which time it has remained closed.

The highest temperature was 101$\frac{4}{5}$° F., and the highest pulse-rate 90, both of which occurred on the twentieth day, and were due to temporary closure of the anal fistula, which opened the next morning, when both pulse and temperature dropped to normal.

On April 4, I operated for the anal fistula, from which operation she has now (April 9) practically recovered.[2]

Were I to operate again for gall-stones I should use the continuous suture by Tait's method for se-

[1] The tube draining the gall-bladder was left long and emptied the bile outside the dressings.

[2] It is well to add that I was consulted yesterday, May 27th, by the patient when I found that a hernia had developed at site of operation. It causes slight inconvenience and is easily reduced and retained.

curing the gall-bladder to the abdomen, inasmuch as the interrupted sutures are quite difficult to remove, especially if the patient is fleshy.

In THE MEDICAL NEWS of February 9, 1889, is copied an abstract of an article by Dr. A. De Page upon "Surgical Intervention in Biliary Lithiasis" (*Journ. de Med. Bruxelles*, 1888, No. 24), from which we learn that up to date there had been 78 cholecystotomies made:

"Of these operations, 6 were done according to the method of Spencer Wells, 72 with suture of the gall-bladder to the abdominal wall. Of the first-named series 3 died of acute peritonitis, 1 cured case was followed by recurrence, and 2 cases were completely cured. Of the second series there were 11 deaths—5 from hemorrhage and collapse, 2 from biliary retention, 2 from effusion of bile into the peritoneum, and 2 from undetermined cause; there were also 4 deaths from secondary complications. Amongst the 'cures' are 24 cases of biliary fistula, some permanent. The number of cholecystectomies has been 22, with 2 deaths from obstruction of the bile-duct, and 1 after recovery from the operation from a cause independent of biliary lithiasis. Thus, in cholecystotomy with suture of the gall-bladder and its return free into the abdominal cavity, a mortality of 50 per cent. resulted; in cholecystotomy with suture of the bladder to the parietes, 15.27 per cent.; and in cholecystectomy, 9.99 per cent.; and as the last-named figure comprises the two cases of permanent occlusion of the common duct, the result, if they be excluded, is to enhance greatly the position of cholecystectomy as an operation to be preferred to cholecystotomy."

Notwithstanding the lower death-rate in cholecystectomy, it seems to me that cholecystotomy, with suture of the gall-bladder to the parietes, is the operation to be preferred in these cases, for we can never be absolutely certain that the bile-duct is patent;[1] and should calculi reform after this operation, or should it for any reason become necessary to reopen the gall-bladder, the operation (with this viscus attached to the parietes) becomes a trivial one.

While the danger of permanent fistula after this operation is used as an argument against it, yet it seems to me that it should weigh in the other direction; for a fistula remaining, in spite of efforts to close it, is proof of partial or complete closure of the duct, and, where this condition obtains, the patient's life depends upon this outlet for the bile remaining open.

Aside from other objections, it seems that the mortality attending cholecystotomy by Wells's method is sufficient reason for its abandonment.

No. 100 FAIRFIELD AVENUE.

MEDICAL PROGRESS.

Dry Antisepsis.—Since the early days of its introduction, antisepsis has undergone great changes. The principles are the same, but the methods of procedure have been greatly simplified, and their adoption rendered more general. Some recent investigations in connection with irrigation have afforded important results. In many cases, flushing of the abdomen in laparotomy has been found to lower the temperature and increase the risks of shock. To obviate these risks, DR. LANDERER, of Leipzig (*Wiener med. Presse*, No. 19, 1889), has conceived the "dry method" of operating, which he claims has been attended with most successful results, and it is warmly advocated by a number of German surgeons. His aim is to obtain antiseptic results without resorting to the use of antiseptic solutions, and his method of conducting operations, briefly stated, is as follows: The instruments, having previously been boiled, should be kept in a solution of carbolic acid during the operation. The hands of the operator must be antiseptically cleansed. During the operation the blood should be sponged away by means of dry bichloride gauze, and those parts of the wound where the operator's knife is not at work should be kept packed with tampons of sublimate gauze. At the close of the operation, after the larger vessels have been ligatured, the wound should be thoroughly dried with the sublimate gauze, and then closed. No drainage is necessary, for, according to Landerer's experiences, when this dry method has been used, no secretions are formed in the wound. The wound should then be dressed with dry antiseptic or sterilized dressings, and a bandage with moderate pressure applied. In ninety operations performed by Landerer, in which his method was employed, all the wounds healed by first intention.

The principal points gained by dry antisepsis are as follows: First, the avoidance of the frequently fatal chilling and wetting of the patients; secondly, decided decrease in the amount of blood lost, which, thirdly, greatly facilitates rapid operating; fourthly, sure and speedy healing. Also, as the quantity of antiseptics used is reduced to a minimum, dangers from poisoning due to the absorption of the drugs employed are almost entirely avoided.

The simplicity of dry antisepsis renders it equally adaptable to the practice of the country or army surgeon as well as to that of the city or hospital practitioner.

The Treatment of Leucorrhœa.—The following prescription has been found most efficacious, by DR. MONIN, in stubborn cases of leucorrhœa:

℞.—Infusion of chamomile . . ℥xvij.
Alum . . . . . ℥ijss.
Iodide of potassium . . . ℥j.
Tincture of iodine . . . ♏xxxij.—M.

Three injections should be made daily, and, in addition, general tonics and sulphur baths are advisable.—*Gazette de Gyn.*, May 1, 1889.

The Surgical Treatment of Tubercular Peritonitis.—In a noteworthy article by DR. F. SPÄTH, of Hamburg, in the *Deutsche medicinische Wochenschrift* of May 16, 1889, on the surgical treatment of tubercular peritonitis, the following conclusions are reached:

1. In cases of primary tubercular peritonitis in which no other organs are involved, laparotomy can be looked upon as a curative measure, and recommended.

2. In cases of tubercular peritonitis in which the tuberculous process has involved the female genitals, no defi-

[1] Vide Abdominal Surgery, by Greig Smith, 2d ed., p. 593.

nite results have been obtained, whether the diseased portions of the genital organs were extirpated or not.

3. In cases of tubercular peritonitis orginating from tubercular growths of the bowels, the operative treatment is only valuable as a palliative.

4. In cases of tuberculosis of the genital organs, unaccompanied by peritoneal tuberculosis, speedy and early operative interference is of value. The indications for such a procedure are very obscure, owing to the difficulty of obtaining a bacteriological diagnosis.

5. Primary tubercular peritonitis is a much rarer disease than has been heretofore considered; therefore, a positive diagnosis should only be accepted when based upon careful bacteriological investigations.

Constipation in Females.—DR. LUTAUD gives the following formula, which he has found most efficacious in stubborn constipation in females:

℞.—Citrate of iron and ammonium .	31 grains.
Fluid extract of cascara sagrada .	32 ♏.
Saccharine	8 grains.
Distilled water	f ʒijss.—M.

Half teaspoonful before each meal.—*Revue de Thèr. méd.-chir.*, May 1, 1889.

Abortion Produced by Tampons of Iodoform.—In two cases of necessary abortion during the third month of pregnancy, DR. SSOLOWJEN resorted to the following method of treatment. Small balls or tampons of iodoform cotton were pushed into the cervix and held in place by a vaginal tampon. As soon as a tampon was expelled into the vagina it was replaced by another. The third ball of iodoform cotton was pushed into the uterus and after its expulsion fourteen tampons were inserted, whereupon the fœtus was expelled. The first patient had a high temperature during the abortion but was well immediately after. The second patient, in whom the manipulation had to be continued for three and one-half days, also had fever for one day. Ssolowjen considers the use of iodoform tampons a most valuable agent for producing abortion.—*Centralblatt für Gynäkologie*, May 4, 1889.

The Antiseptic Treatment of Diphtheria with Quinoline.—DR. DORNAT, in the *Gazette hebdomadaire Méd. et de Chir.*, April 19, 1889, recommends the use of quinoline as a local remedy in diphtheria on account of its antiseptic properties, and says that he has found it most efficacious.

As a gargle, he prescribes it in the following formula:

Quinoline	grs. 9.
Alcohol (at 194°)	f ʒj.
Boiling distilled water . . .	f ʒxvj.
Essence of menthol	gtt. j.

For local application:

Quinoline.	grs. 15.
Alcohol (194°) }	āā f ʒvij.
Distilled water }	

Creolin in Flatulency.—DR. HILLER, in the *Deutsche med. Wochenschrift*, April 25, 1889, recommends the use of creolin in cases of flatulency. He has found that doses of five to fifteen grains, given in gelatine capsules, three times a day, are most effectual. No unpleasant symptoms were observed to follow its use even when given in two-drachm doses. Dr. Hiller advises, however, that the treatment should begin with doses not greater than from two to five grains.

Treatment of Suppurating Buboes with Iodoform.—Although the treatment of suppurating buboes with iodoform is not new, the manner of applying it, as told by DR. FONTAN, in the *Lyon Medical*, April 26, 1889, is certainly novel. After the bubo has been well opened by means of a curved bistoury, and thoroughly washed out with an antiseptic solution, a mixture of iodoform and vaseline (one-sixth iodoform), having been liquefied by heat, is injected in the cavity; then cold applications of wet bichloride cotton are made in order that the vaseline may solidify around the opening of the wound. A speedy and complete cure is said to have resulted in every case, suppuration being completely arrested. In chancroidal buboes the same treatment was found to be most effectual.

Treatment of Tabes by Suspension.—At the last meeting of the Neurological Society of Berlin, PROF. BERNHARDT reported the results of 220 suspensions in 19 cases of tabes. He concludes that suspension by means of Sayre's apparatus is a most valuable therapeutic agent in this disease. In almost every case he observed a decrease, if not disappearance, of the lancinating pains, improved walk, a diminution of ataxic symptoms, strengthening of the functions of the bladder, and improved mental and general physical condition.—*Deutsche med. Woch.*, May 16, 1889.

An Application for Boils.—DR. HALLE, in *L'Union méd.* of May 14, 1889, gives the following prescription, which he claims, when used according to the directions given below, never fails to abort boils:

℞.—Tincture of arnica flowers . .	fʒijss.
Powdered tannic acid } . .	āā ʒjss.—M.
Powdered gum arabic }	

Paint the boil and the surrounding skin with this mixture every five minutes until the coating becomes thick and hard; the pain will immediately disappear.

Sweating Feet.—The fetid sweat of the feet, so frequently met with, may be quickly cured by the following simple procedure: Soak the soles of the stockings to be worn on the following day in a three per cent. solution of boric acid, and allow them to dry during the night. The stockings should be changed at least every other day, and the feet kept clean. The most stubborn cases will yield to this treatment.—*Monatsheft für Prakt. Derm.*, May 1889.

Chloroform Inhalations in the Treatment of Severe Forms of Pneumonia.—DR. CLEMENS, in the *Allg. med. Centr. Ztg.*, No. 21, reports forty-two cases of severe forms of pneumonia, which were treated exclusively with inhalations of chloroform. According to the author, these inhalations not only immediately alleviate all pain, but also cut short the duration of the disease itself. Indeed, in most cases after a continuous use of this remedy for twelve hours a considerable and rapid fall of temperature was noted.

Unfavorable symptoms resulting from its use the author claims never to have observed, provided the chloroform had not undergone decomposition. For these inhalations the chloroform is diluted with alcohol. The severer the case the greater the quantity of alcohol, as longer use of the remedy is necessary. Clemens' method of administering the drug is as follows: a small ball of lightly wound cotton is allowed to absorb about two or three drachms of the alcoholic solution of chloroform. This is then wrapped in loose cotton and held within about an inch of the face. The inhalations should be interrupted from time to time.

In substantiation of the value of his method of treatment, Clemens claims not to have lost a single case of inflammation of the lungs during a practice of forty-two years.

Snuff for Coryza.—SIR MORELL MACKENZIE recommends the following snuff in cases of coryza:

℞.—Sulphate of morphia . . . gr. ij.
Subnitrate of bismuth . . . ʒj.—M.

Small quantities of the powder should be snuffed up into the nose during the first forty-eight hours of the affection.—*L' Union méd.*, May 18, 1889.

Hemorrhoids Treated by Dilatation of Anus and Rectum.—PROF. SCABBOTIN, says the *Prager med. Wochenschrift*, April 17, 1889, recently claims to have radically cured sixty-one cases of hemorrhoids by forcible dilatation of the anus or rectum. A "Trélat dilator" was used for the purpose. No unpleasant symptoms were ever observed to follow the operation.

Hypodermatic Injections of Blood in Anæmia.—DR. H. WESTPHALEN, in the *Centralbl. für Therapie*, No. 5, 1889, reports a case of extreme anæmia which was cured by subcutaneous injections of blood, according to Ziemssen's method. The case was that of a man, aged thirty-six, whose blood was extremely poor; the number of red corpuscles being only 840,000 to the cubic millimetre. Tonic treatment had been pursued for some time previous but to no avail.

About five ounces of blood were taken from the median vein of a healthy subject, caught in a vessel and defibrinated by stirring with a glass rod, then strained through gauze to remove the larger particles of fibrine, and then injected under the skin of the thighs; about six or seven drachms being injected at each puncture. Then the limbs were vigorously rubbed and manipulated in the direction of the lymphatic stream. The absorption of the blood was complete. No unpleasant symptoms followed the operation. The next day the pulse, which had been 100, dropped to 80. Eight days later the patient's blood was examined and found to contain 1,240,000 red blood-corpuscles in a cubic millimetre. In one month he was pronounced cured.

Unpleasant Symptoms Following the Use of Sulphonal.—DR. PAUL REHM reports to the *Berliner klin. Woch.*, No. 16, several cases in which most unpleasant symptoms were observed to follow the use of sulphonal. In one case, in which the drug was given in eighteen-grain doses for muscular rheumatism, it acted well for the first three doses, after which symptoms of fatigue and depression manifested themselves. The drug still being continued, these symptoms were followed by constipation, loss of appetite, intense physical and mental restlessness, excitement, fear, a feeling of dizziness when the eyes were closed; later, painful hallucinations and depression. Dr. Rehm, when he called, found the patient in an almost collapsed condition, face pale, pupils contracted, speech scarcely audible; pulse weak, over 100; ischuria, hyperæsthesia of the senses, sight double, muscular contractions, etc. The patient was wholly unable to move, and two weeks later was only able to walk with a staggering gait. Dr. Rehm also reports several other cases in which similar, although not so intense, symptoms were observed to follow the use of moderate doses of sulphonal.

A New Soap for Scabies.—At the last meeting of the Therapeutic Society of Paris, DR. CONSTANTIN PAUL gave the following formula for a "scabies soap":

℞.—Soap . . . . . 100 parts.
Petroleum, Alcohol } . . . āā 50 "
White wax . . . . 40 " —M.

If the body is well washed with this soap two or three times a day, the scabies will disappear in two or three days.—*Wiener med. Presse*, May 12, 1889.

Perfumed Chloroform.—In cases in which the administration of chloroform produces vomiting, or is otherwise badly tolerated, DR. NUSSBAUM, in the *Revue de Thérap. méd.-chir.*, of May 15, 1889, advises the use of chloroform perfumed with oil of cloves. He claims to have repeatedly used the anæsthetic thus perfumed in the most sensitive cases, without its ever causing vomiting. The possibilities of casualties resulting from the use of chloroform are said to be greatly lessened by perfuming it.

The Treatment of Metrorrhagia.—DR. ROKITANSKY has found the following most efficient in cases of metrorrhagia:

℞.—Extract of ergot . . . . . ʒjss.
Cinnamon water . . . . . fʒvj.
Syrup of bitter orange rind, Rum (good quality) } āā fʒss.
Salicylic acid . . . . . gr. viij.—M.

Dose, a teaspoonful three times a day.—*Revue de Thérap. méd.-chir.*, May 15, 1889.

Fœtal Infection by Typhoid Bacilli.—The question as to whether or not the typhoid bacilli can infect the fœtus has been actively discussed of late. A case which was lately reported by DR. T. C. EBERTH, and referred to in the *Centralblatt für Bakter. und Parasit.*, May 3, 1889, apparently settles the question. A woman, aged thirty, in the fifth month of pregnancy, was taken with typhoid fever and miscarried. The fœtus was at once subjected to a most careful examination, and in the cardiac blood, as well as in the secretions of the lungs and spleen, the bacilli were found. Strange to say none were discovered in the liver. The bacilli thus procured were transferred to cultures (potatoes, gelatine, etc.), and developed further bacilli. That these microörganisms were true typhoid bacilli Eberth does not alone state upon his own

responsibility, but also upon the unanimous opinions of eminent bacteriologists.

Formulæ for Creasote.—On account of the disagreeable taste of creasote, its internal administration is advised in the form of capsules. Still there are other forms of prescribing it which are useful. The following are given by DR. KEFERSTEN, in the *Gaz. hebd. de Méd. et de Chir.*, May 10, 1889, and although not new, may be found valuable:

I. The usual formula for creasote capsules is:

℞.—Creasote . . . . . ¼ gr.
Balsam of tolu . . . ⅓ gr.—M.

The above is for one capsule. Average dose, three capsules a day.

II. The following emulsion of creasote well replaces cod-liver oil and creasote:

℞.—Oil of sweet almonds . . fʒv.
Creasote (beech-tree) . . fʒij.

Dissolve and add

Gum arabic . . . . ʒjv.
Dist. menthol water . . . fʒxvij.—M.

About a tablespoonful may be given from two to five times a day.

III. Under the title of "creasote drops" Kefersten gives the following:

℞.—Creasote . . . . . ʒj.
Tincture of cinnamon . . fʒjss.

The average dose is fifty drops daily in port wine.

IV. In cases in which there is cough and diarrhœa the following pills will be found most valuable:

℞.—Creasote . . . . . 31 grains.
Acetate of lead . . . 4 "
Extract of opium . . . 3 "
Syrup of sugar . . } āā q. s.—M.
Gum arabic . . . }

Make into one hundred pills. Dose, five to six pills three times a day.

V. Lastly, Kefersten recommends "creasote potion," as given below:

℞.—Creasote . . . . . 15 grains.
Alcohol . . . . . fʒvj.
Syrup of cinnamon . . . fʒivss.—M.

Dose, about two dessertspoonfuls a day; this may be gradually increased as deemed advisable.

Carbolic Acid Spray in Whooping-cough.—DR. E. MAURICE reports to the *Journal de Méd. de Bordeaux*, No. 36, several cases of whooping-cough which he has treated most successfully with carbolic acid spray. A five per cent. solution is used, and about a quart sprayed at three different intervals during the day. The paroxysms of coughing are immediately relieved and the duration of the disease materially lessened.

Plastic Operation in Open Cancer.—To change an open cancer into a covered cancer, DR. P. KRASKE, in the *Centr. für die med. Wissensch.*, May 18, 1889, advises the following method of procedure, which he has used successfully in three cases. After the surface of the cancer has been freshened by means of a sharp scoop or knife, a flap of healthy neighboring skin is brought over the surface of the cancer and fixed in place by a few stitches. If the surface of the cancer has been well freshened, and if the operation is conducted according to strict antiseptic principles, healing by first intention may be expected. Skin grafts should be made upon the exposed flesh from which the flap was taken.

Application for Warts.—The following is quoted from the *Gaz. med. Lomb.*, May, 1889, and is claimed to be very effectual:

℞.—Acid salicylic . . . . grains 15.
Alcohol . . . . . ♏xvj.
Ether . . . . . ♏xxxx.
Collodion . . . . . fʒjss.—M.

Apply daily to the warts.

Treatment of In-growing Nails with Tinfoil.—DR. THEODORE CLEMENS, in the *Thérap. Monatscheft* for May, 1889, highly recommends the treatment of in-growing toe-nails with tinfoil packing. The process is merely to pack under the sharp edge of the in-growing nail one or two thicknesses of common tinfoil with the aid of a small pincette. The treatment, which after the first time the patient can readily undertake himself, is painless, and need be continued for a few weeks only; in which time it will only be necessary to renew the packing about four or five times. Clemens claims that the tinfoil acts chemically as well as mechanically—its composition being iron, copper, arsenic, molybden, wolfram, and bismuth. In cases of in-growing nails occurring in patients suffering with hereditary syphilis, the remedy acts with special efficacy.

Toothache Drops.—

℞.—Morphine acetate . . . . grain 1.
Oil of peppermint . . . gtts. v.
Phenol . . . . . gtts. xx.
Collodion . . . . . fʒj.—M.

Apply with cotton.—*Journ. de Méd.*

The Etiology of Scarlet Fever.—An interesting series of experiments, relating to the etiology of scarlet fever, has recently been carried out by DR. MARIE RASKIN, of St. Petersburg. The results of her researches, which appear in the report of Third Congress of Russian Physicians in St. Petersburg (*Central. für Bakt. und Paras.*, May 10, 1889), are as follows:

The micrococcus scarlatinæ, as described by Klein, she has found to be a streptococcus, and identical with the streptococcus pyogenes. The scarlet fever bacillus, described by Edington, was only found in four cases out of one hundred. However, in every case, Dr. Raskin found a new and as yet undescribed micrococcus. It is of an irregular form and varies in size. It grew well in cultures of agar or gelatine. When found in pairs, the one was invariably larger than the other. The coccus was found in the blood, parenchymatous organs, and also in the skin flakes of the patient. In the blood it was only observed during the first four days of the disease, and then always enclosed in the white blood-corpuscles. Moderate warmth was necessary for its growth in cultures.

THE MEDICAL NEWS.

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OF MEDICAL SCIENCE.

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SATURDAY, JUNE 22, 1889.

THE MORTALITY AMONG NURSES.

THE advocates of the non-bacillary origin of tuberculosis have sought support for their position in the immunity often enjoyed by nurses and attendants on the phthisical. That this immunity is the exception and not the rule seems indicated by recent studies by CORNET, whose rules for the prevention of tubercular infection have been adopted by the German Government, and were published in THE MEDICAL NEWS of May 25th (page 572).

In the *Zeitschrift für Hygiene*, Sechster Band, 1889, Cornet publishes the tabulated results of his comparison of the mortality rates in the population of towns and cities and in nurses. A large proportion of German nurses are members of religious orders who by reason of their secluded, regular lives are removed from many causes of acute disease. Such nurses are in the best mental and moral condition to insure health, for which and other reasons the infective diseases ought not to be especially prevalent among them. Care was taken to select orders whose members serve for life and remain celibate.

The material collected was from 38 cloisters, embracing an average yearly service of 4028 women, whose aggregate service in years was 87,450. An examination of this material during 25 years revealed 2099 deaths, 62.88 per cent. of which were from tuberculosis, or nearly two thirds; the usual proportion of deaths from tuberculosis is from one-seventh to one-fifth. Next to tuberculosis comes typhoid, while cancer shows a slightly increased rate of mortality. Death occurred among these nurses at an average age of 36.27 years, an average shorter life than that of workmen exposed to the inhalation of injurious dust, by eight or ten years.

The death-rate from tuberculosis among nurses attains its maximum between the thirtieth and fortieth years, and then steadily declines. When a comparison of the death-rate of nurses and the population of a town is made, it is found that between the ages of 15 and 20 the mortality among nurses is four times that of other population; from 20 to 30, three times; from 30 to 40, twice as great, afterward becoming about equal. The explanation of these facts is found in the prevalence of tuberculosis among nurses, it being nine times more frequent than among other classes. All infectious diseases are more frequent among nurses until the fortieth year of life, after which their death-rate is lower than that of other classes.

It is further shown that during the first six months of service the nurse enjoys comparative immunity from infection; after that the mortality and morbidity rate steadily rises for three years, during which the greatest number of deaths occur. The life chances of nurses do not compare favorably with others; a nurse beginning her profession at seventeen has twenty-one and a half years of life less than a woman of the same age not exposed to infective diseases; so far as relative age is concerned, a nurse at twenty-five has the chance for life commonly enjoyed at fifty-eight; at thirty-three years the outlook of a person aged sixty-two.

This sombre picture, however, is not drawn equally of all hospitals. There are those in which the nurse enjoys a far better sanitary environment, but that these are comparatively few may be realized from the fact that, out of twenty-one hospitals, in fifteen tubercle bacilli in a virulent condition were found upon the walls and beds and bedding.

The practical importance of these studies is self-evident. It is well known that tubercular infection is most frequently conveyed by the inspiration of dried sputa. If the patient expectorates into a vessel containing water, and the sputa fall into the water and do not dry upon the sides of the vessel, upon the bed, wall, or floor, the first source of infection is largely avoided. Especial care should be taken to avoid the retention of sputa in towels, handkerchiefs, and bedding; it is a common practice among

the phthisical to expectorate upon a handkerchief, which is often placed beneath the pillow. Those who handle such infected articles after the sputa have dried are especially liable to infection.

Until those who deny the infectious nature and bacillary infection of tuberculosis offer demonstrative proof of greater scientific weight than that advanced by Koch and others, it is the duty of the practical physician to act upon the belief that tuberculosis is infectious, and to guard against its infection; fortunately the measures necessary for the protection of nurses are possible in all well-regulated hospitals and among intelligent families, and these measures should be strictly enforced.

RESECTION OF THE RECTUM.

THE operation of resection of the rectum, for the removal of high-seated growths, has been performed of late years more frequently and attended with greater success than formerly. Still, the methods principally employed are by no means all that could be desired. One of their chief drawbacks is the fact that the coccyx is always sacrificed, and through this procedure the pelvis robbed of a most important support. The result frequently is incontinence of feces and prolapse of the rectum. HEINECKE (*Münchener med. Wochenschr.*, No. 37, 1888) advises a temporary resection of the coccyx and of the lower end of the sacrum. His method is very complicated and necessitates two operations. Kocher, who has had large experience in rectal surgery, has always found it necessary to resect the coccyx, and Kraske (*Langenbeck's Archiv*, 1886, vol. xxxiii., No. 3) is of the same opinion. A most practicable method has, however, been brought forward by DR. WILLIAM LEVY, of Berlin. He holds (*Centralblatt für Chirurgie*, No. 13, 1887) that the floor of the pelvis and the sphincter should not be incised if possible. The question naturally arises, Is it possible to reach high portions of the rectum without cutting through the floor of the pelvis or dividing the sphincter? To solve this satisfactorily, Levy began a series of experiments upon the cadaver, and finally struck upon an entirely new method of conducting the operation.

The first incision is made horizontally across the sacrum, about one-half inch above the cornua coccygea. This incision should be about four to four and one-half inches in length and should reach to the bone. From the two extremities of this incision two cuts are extended downward, about four inches, through the entire thickness of the gluteus maximus. In one of these perpendicular incisions a wide blunt hook is inserted and the muscle pulled well outward, the lateral portion of the posterior sacro-sciatic ligament is laid bare, and both the posterior and anterior sacro-sciatic ligaments are divided close to the edge of the bone in the direction of the horizontal incision. The same procedure is then carried out on the other side. Now, by means of an elevator, the connective tissue on the anterior wall of the sacrum is freed, and between the elevator and the bone the blunt end of a pair of bone scissors is introduced and the sacrum cut through. The skin flap, with the piece of bone attached, is then pulled down, by means of a strong hook, and a large portion of the rectum will be brought into view. Through this opening, after the connective tissue has been loosened, one is able to reach downward to within three-quarters of an inch above the sphincter and upward to the sigmoid flexure. If, on account of the magnitude of the growth, it is still necessary to cut away more of the sacrum, it may easily be done without interfering with the base of the pelvis.

Of the conclusion of the operation little need be said. The resected bowel should be closed with a double row of sutures, the flap is then brought back into its original position, the excised portion of the sacrum fastened in place by bone suturing, and the horizontal incision closed. The perpendicular incisions may either be packed with iodoform gauze or else closed, except at the lower extremities, which should be left open for drainage. Irrigation may be used for a few days or an antiseptic dressing at once applied.

The great advantage claimed for this operation is that it will leave the patient in full possession of the normal function of the lower bowel. Since the sphincter has not been touched, nor the base of the pelvis robbed of bony support, incontinence of feces and prolapse cannot occur, and the probabilities of an ultimate recovery are greatly enhanced.

THE American Medical Association meets at Newport on Tuesday, Wednesday, Thursday, and Friday of next week, and there is every indication of a large, interesting, and unusually instructive meeting. Several amendments to the constitution, which are printed in another column, will come up for action, and on account of their importance should receive careful consideration. The one providing for a General Committee, proposed by Dr. N. S.

Davis, has very important bearings upon the future mode of conducting the business of the Association.

THE American Neurological Association meets at the West End Hotel, Long Branch, on June 26th, 27th, and 28th.

OUR excellent contemporary, *The Weekly Medical Review*, of St. Louis, evinces its enterprise by announcing that on the first of July it will be enlarged to the size of the *New York Medical Journal*. It also states that another weekly medical journal is about to enter the field in that city.

The Medical Press of Western New York, which has been published for nearly four years under the able editorial management of Dr. Roswell Park, states, in its June issue, that the circumstances which called it into existence no longer exist, and that it has been merged into its older contemporary, *The Buffalo Medical and Surgical Journal*.

M. LOUIS PASTEUR accepted the invitation of the Council of the Royal Society of England to deliver the Croonian Lecture on June 3d, but on account of his ill-health, M. Roux was obliged to read it for him. His subject was "Preventive Inoculation." He stated his belief that the best explanation of the problem of immunity consisted in considering it as the result of the habituation of the white blood-corpuscles to the poisons secreted by the microbes. "When the virus begins to develop in the body of an animal subject to the malady it forms its poisons, and when the white corpuscles begin to struggle against them their activity is arrested by this toxic production. The microbe continues to develop, and the malady progresses. But in the case of an animal rendered refractory by previous injection of the soluble substances, or by inoculation of attenuated virus, the corpuscles have already got accustomed to the microbic poison, and since the small doses given at the beginning of the cultivation of the virus do not impede their activity, they commence the struggle and devour the parasites."

WE greatly regret to learn that Dr. T. G. Richardson has felt obliged on account of ill-health to resign the professorship of Surgery in the Tulane University, New Orleans, which he has so ably filled for an unusually long period. Two years ago, while travelling in Southern Europe, Dr. Richardson contracted an alvine flux from which he has never since been entirely free, although at present he is much better and has encouraging prospects of recovery.

Upon the acceptance of his resignation his colleagues of the Medical Faculty adopted the following complimentary resolutions:

Whereas, Prof. T. G. Richardson, who has served the medical department thirty-one years—fourteen as professor of anatomy and seventeen as professor of surgery, including twenty years as dean—has urged the acceptance of his own resignation because of ill-health; therefore, be it

Resolved, That Prof. Richardson's resignation is accepted with the utmost regret, this faculty being thereby deprived of its most valued member and its wisest counsellor.

Resolved, That the members of this faculty can never forget that his inflexible devotion to truth, honor, and duty furnished for their guidance the highest and noblest standard of true manhood; that his ability and experience as a teacher placed him in the foremost rank of medical instructors; that his wisdom as dean successfully guided the destiny of the medical department through many years of its severest trial, and that to him more than to any other is due its present prosperity.

Resolved, That while deeply deploring the necessity that withdraws from active service our senior professor, yet our hearts are revived by the hope that time and rest will restore him to health and give to him many happy and useful years wherewith to bless his family and his friends and to benefit all of his fellow-citizens.

Resolved, That Dr. T. G. Richardson is hereby chosen emeritus professor of surgery.

Prof. Samuel Logan, Emeritus Professor of Anatomy, has been selected to fill the chair of Surgery rendered vacant by Dr. Richardson's resignation.

THE Medical Society of New Jersey held its one hundred and twenty-third annual meeting at Asbury Park, on June 18th and 19th, under the presidency of Dr. H. Genet Taylor, of Camden.

THE College of Physicians and Surgeons of New York, at its commencement last week, conferred the degree of M.D. on 166 graduates, the largest class in the history of the College. The total number of matriculates is said to have been 800. Dr. James W. McLane has been elected to succeed the late Prof. John C. Dalton as President of the College.

AT the meeting of the New York Academy of Medicine held on Thursday evening, the plans for the new building were presented and described by the architect, Mr. R. H. Robertson; and, as this was the last meeting before the summer adjournment, after the meeting there was an informal reception and collation.

LADY KORTRIGHT, formerly of Philadelphia, but now living in England, has presented $100,000 to the Presbyterian Hospital at Philadelphia, to found a Convalescents' Retreat. She has also given to the same hospital $40,000 to build a male surgical ward, and $10,000 to endow two perpetual free beds.

THE attention of the Iowa State Board of Health has been called to the important question of river pollution alleged to be due to sewage containing sulphuric acid. The question bears upon the present condition of the Iowa River in the vicinity of Tama City and Marshalltown, due to the poisoning of myriads of fish by the refuse flowing from certain glucose works located at the latter town. The fish thus destroyed have, by accumulating and putrefying, become a nuisance injurious to so large a river-side population as to demand the interposition of the State authorities. The people living along the stream have made efforts to clear it of the dead fish, in the hope of procuring relief, but the masses of them were too great to be removed in this manner. There is rapidly becoming a necessity for general legislation in this country to prevent the pollution of our rivers.

THE Astley-Cooper prize, amounting to $1500, will be awarded in 1892. The question proposed is, "The Influence of Microörganisms upon Inflammation." The papers of those contesting for the prize should be written in English, or accompanied by an English translation, and should be addressed, before January 1, 1892, to Guy's Hospital, London. The prize will not be awarded to two or three working together.

PROF. AUGUST BREISKY, the well-known Viennese gynecologist, died on the twenty-fifth of May, after a protracted illness. His loss will not only be felt in Vienna, but by the medical profession in general. He was a man of rare capabilities, an excellent writer, a lucid lecturer, and a most enthusiastic student. His manner was quiet, unassuming, and gentle, admirably suited for his chosen specialty. Breisky was born in Bohemia in 1832, was graduated in medicine at Prague in 1855; after serving as assistant to Treitz, and later to Seyfert for several years, he began practising, but in 1866 was called to a professorship in the Salzburg school and in the following year he was transferred to Berne where he remained seven years. In 1874 he was elected Professor at the University of Prague, where he remained until 1886, at which time he came to Vienna to take the Gynecological chair at that University rendered vacant by the retirement of Späth.

SOCIETY PROCEEDINGS.

PHILADELPHIA ACADEMY OF SURGERY.

Stated Meeting, May 6, 1889.

THOMAS G. MORTON, M.D., IN THE CHAIR.

DR. CHARLES B. NANCREDE presented the specimen from a case of

EXCISION OF THE OS CALCIS,

which had two points of interest. The first is, that it is somewhat unusual to remove the os calcis in its entirety, and the second is the difficulty that was experienced in its removal. The patient was a child, ten years of age, with the ordinary history of strumous bone trouble. Examination showed that the probe entered the substance of the os calcis. He made the Ollier incision for the removal of the entire bone, and was able to get around it to a certain point. When he attempted to separate its connections with the astragalus, he found bony ankylosis between the two bones, requiring the use of bone forceps. The removal of the bone in its entirety has certain advantages over the removal piecemeal. No fragments are left behind, and if there is any advantage in leaving the periosteum, it can be done better than by the other method. The specimen shows a distinct epiphysial abscess of the os calcis near the attachment of the tendo Achillis. This is the second time that he had performed this operation. The first was done nearly thirteen years ago, and the man is able to walk with perfect ease. All that he needs to do is to fill up the heel of his shoe with a wad of newspaper.

DR. SAMUEL ASHHURST asked if all the caries could not have been removed without the removal of the entire bone? He had in mind several cases in which, under the use of Vilette's fluid, patients have entirely recovered without operative interference. He recalled one case treated in this way twenty years ago who is still perfectly well.

DR. NANCREDE thought that, if modern views are correct in regard to these bone affections—viz., that they are of a strumous nature—that struma and tubercle are the same so far as can be distinguished clinically, it is desirable that we should, if possible, get rid of the entire disease. It is well known that rough attempts to remove tubercular bone may favor an outbreak of acute tuberculosis. If this operation was followed by bad results and subjected the patient to great risks, that would be more in favor of the use of solvents, but such is not the case. The space left is filled with dense fibrous tissue, and the result, both from a cosmetic and useful point of view, is admirable. He had tried solvents, but with very poor results, in other bone cases.

A few days ago, Dr. Simes assisted him with an operation on a femur, where he is sure that the disease is tubercular, and which admirably illustrates the necessity of free removal of bone in tubercular disease. He trephined opposite the opening of an old bone abscess, and cleared out the medulla until firm and solid bone was

reached. The bone was so thickened for two inches above this point that it was agreed that the trephine should be applied there. This was done, and the whole medulla found diseased here also. From this he broke through into still a third caseous space. Attention has been recently called, by Dr. Senn, to the fact that in tubercle of the long bones there may be disease an inch or two above the point indicated by external appearances. Probably one-half of the cases said to be relapses are really insufficient original operations which failed to reach all diseased foci.

DR. WILLIAM HUNT said that ten years or more ago, he made an incision over a sinus in almost the same position as in the specimen shown. He removed a marble-shaped piece of necrosed bone, cleaned out the cavity, and restored the flaps, making provision for drainage. The operation was performed in a boy of sixteen, in good condition, although there was a tubercular history in the family. The wound healed perfectly, and the individual is now in perfect health. He, however, in the main, agrees with what Dr. Nancrede has said. He had seen admirable results from the entire removal of the bone.

DR. SAMUEL ASHHURST then exhibited

A CURVED DIRECTOR TO BE USED IN THE PERFORMANCE OF TRACHEOTOMY.

He said it was a suggestion looking toward a new instrument rather than a perfected instrument. Most surgeons have probably found difficulty in uncovering the trachea with the ordinary director in performing tracheotomy, especially in children where the space between the chin and the sternum is very limited. If we are going to open below the thyroid isthmus, the space which we have is not more than one-half inch, no matter how free the superficial incisions may be. Operating under such circumstances curved directors have been used, and in this way the tissue covering the trachea was lifted. It occurred to him that a director made of a shape similar to the ordinary aneurism needle, and with a groove on its concavity, would facilitate the operation, and he had devised such an instrument. He had used it but once, and that was in one of the deepest tracheotomies that he had performed, the trachea when uncovered being fully one and one-half or one and three-fourths inches below the surface. In this case it worked very well.

DR. NANCREDE asked why it was that the high operation is not more frequently performed in this country. This operation is very simple, and it is impossible to injure any vessels of size. The only thing likely to be cut is the transverse communication between the thyroid veins. The incision is made from about the middle of the thyroid cartilage down to the point where it is proposed to insert the tube, probably about the second or third ring of the trachea. The superficial fascia is then divided, and we reach the superficial layer of the deep fascia. An ordinary eye speculum is now inserted. Then a transverse incision is made over the cricoid cartilage, cutting through the coalesced layers of the deep fascia. We can then work downward, having everything perfectly and safely enclosed in the two layers of the deep fascia, and can insert the tube as low as in the other operation. The low operation may be indicated where we are looking for a foreign body, but in ordinary cases of croup or stenosis from other causes, he thought that the high operation answers every purpose. He believed that the risk of anterior mediastinitis is less after the high operation than after the low.

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, May 17, 1889.

THE PRESIDENT, DR. WILLIAM GARDNER, IN THE CHAIR.

DR. FINLEY showed the organs of a patient, the subject of

MALIGNANT DISEASE OF THE STOMACH.

There was a growth on either side of the pylorus and the gastric walls were uniformly infiltrated. The mucosa was not ulcerated, and although the opening at the pylorus was only half an inch in diameter, there was no dilatation of the stomach. The pyloric growth was continuous with a nodule projecting into the hepatic flexure of the colon, causing puckering and moderate contraction of the lumen of the bowel. Microscopically there was inflammatory infiltration of the mucosa with much hyperplasia of the submucous and muscular layers. No cancerous elements had been found after examining a large number of specimens from different parts of the growth. The liver and heart were considerably atrophied, but no metastases were present. The absence of hemorrhage was explained by vomiting always during or after meals. The growth was doubtless of a malignant nature, as the cancerous elements are at times occluded by the fibrous elements of the growth.

DR. STEWART stated that the patient, a woman aged forty-six, had been subject to severe and frequent vomiting since June last, also had pain, but no hemorrhage. Moderate and progressive emaciation had accompanied the affection. A tumor was felt in the epigastrium, but there was no dilatation of the stomach. A diagnosis of pyloric cancer had been made.

DR. BELL exhibited a specimen showing

RUPTURE OF THE BOWEL FROM VIOLENCE.

The specimen was removed from a grown man, aged thirty-five, who was discharged from his employment on Friday, May 3d, with a considerable amount of money in his possession. He was taken up by the police on Saturday for drunkenness. Being unable to pay his fine, he was put in jail, where he was found dead in bed at five o'clock Sunday morning. He was a perfectly healthy man. A coroner's inquest was held and the verdict of "*Death from congestion of the lungs*" found. No post-mortem was held. He having no relatives, was sent up to the Anatomical Department of McGill's University, and there a post-mortem was held by Dr. Finley. A rupture of the ileum was found three feet from the ileo-cæcal valve. There was no ulceration. The eversion of the mucous membrane was well marked. There was also general plastic peritonitis. There were no marks of violence on the abdominal wall. Dr. Bell stated that when the man was taken to jail he complained of severe pain in the belly and could not walk, and he was prescribed for by the jail physician. Dr. Bell also said that he had no doubt that the man had been kicked to death.

DR. SHEPHERD said that this was another example of

the uselessness of coroners' inquests when held by an incompetent individual. In the museum of the medical faculty of McGill University was a specimen obtained a year or two ago from the dissecting-room. The man had been found in an unconscious state in the streets and was brought to the General Hospital where he died in a few hours. A coroner's jury brought in a verdict of death from apoplexy. The coroner refused a post-mortem examination. When examined in the college every rib was found broken, the whole twenty-four, and the specimen is now in the college museum. He considered this state of affairs most disgraceful and dangerous to the welfare of the community.

RIGHT SUBCLAVIAN ARTERY ARISING FROM THE DESCENDING AORTIC ARCH. RIGHT PULMONARY VEIN EMPTYING INTO THE SUPERIOR VENA CAVA.

DR. SHEPHERD exhibited a specimen obtained from the dissecting-room in which the right subclavian artery arose from the descending aortic arch opposite the third dorsal vertebra, passed up and to the right behind the trachea and œsophagus to its normal position in the neck. The recurrent laryngeal nerve did not hook round the right subclavian, but went directly to its place of supply. The right vertebral arose from the right carotid, about the point the subclavian arises. The left vertebral arose from the aortic arch between the left carotid and left subclavian. Dr. Shepherd said that this was a very rare anomaly, but its occurrence was easily explained by referring to the development of the vascular arches. It was an example of a persistence of the right aortic root; the fourth arch, from which the subclavian of the right side is usually derived, having atrophied and disappeared, unless we regard the right vertebral as the inner remnant of that arch. Both fourth and fifth arches having disappeared, the inferior laryngeal nerve would, of course, go directly to its destination without hooking round the subclavian, which, in this instance, is formed by the persistent right aortic root. There was a slight attempt at recurrence at the point the vertebral arose; this inspires the supposition that this vessel was the remains of the fourth arch.

Dr. Shepherd stated that he had reported many years ago in Vol. I. of the *Montreal General Hospital Reports*, a case of double subclavian, that is, a persistence of both the fourth arch and the right aortic root. The vessel representing the right aortic root was of small size and joined the true subclavian in its second portion.

In this same subject on the right side there was only one pulmonary vein of large size which emptied into the vena azygos major instead of into the left auricle. The continued vein was of large size, and hooking round the root of the right lung soon emptied itself into the superior vena cava. Dr. Shepherd said this was a very rare anomaly and he could find only one reference to it, viz., in Henle's *Anatomy*. In the same subject the renal arteries were multiple and there were many muscular anomalies, none of them of any great rarity. The composition of the teeth was peculiar in the upper jaw; the intermaxillary bones appeared to have been poorly developed, and the teeth of the upper jaw proper overlapped the incisors on each side, as if the growth of the superior maxilla had been greater than that of the intermaxillary bones. The patient was a woman, aged thirty, who died in the General Hospital of chronic phthisis.

DR. BULLER reported a successful case of

MULE'S OPERATION OF INSERTING AN ARTIFICIAL VITREOUS.

The patient, a boy aged eight years, was exhibited to the Society. The following is the history of the case: On the 11th of April last the boy was injured by a piece of wood thrown at him in play. Dr. Buller saw him for the first time on the 18th of the month. The eye was said to have been swollen for a few days, but had not caused him much discomfort, and he had been without treatment. The eye was found soft and shrunken, and there was a recently healed wound about half an inch long on both upper and lower lids. The wound of the eyeball had divided the cornea vertically in two parts and extended a short distance into the sclerotic at either end. There was no perception of light. All swelling of the lids had disappeared, and the conjunctiva was healthy; some tenderness and retraction of the scleral portion of the wound seemed to indicate danger to the other eye, and to avert this danger immediate operation was advised. Considering the youth of the patient, Dr. Buller preferred not to enucleate the eye, as he had found that the enucleation of the eyeball in childhood tended to a faulty development of the conjunctival sac and difficulty in ultimately wearing an artificial eye.

The boy being perfectly healthy, and evidently not predisposed to unhealthy inflammatory action, the case was considered one favorable for the performance of Mr. Mule's operation of inserting an artificial vitreous. This operation was done on the following day. The strictest antiseptic precautions were observed. The only difficulty experienced was that of arresting completely the hemorrhage from the under surface of the sclerotic; about fifteen minutes elapsed before the bleeding entirely ceased. The glass globe was then inserted. The smallest size of globe was used, so as to avoid tension of the parts where the sutures, three in number, were introduced. The scleral edges were brought into apposition in a vertical direction, the conjunctiva was united transversely over this, also by three sutures, and the eye again carefully cleansed with bichloride of mercury solution, 1 : 5000. The parts were then washed with iodoform and a pad of absorbent cotton applied over the closed lids; the dressing was kept in place by a firmly applied bandage covering both eyes. The dressing was allowed to remain undisturbed for forty-eight hours, and when removed the lids and orbital tissues were found considerably swollen and tender. This subsided in a few days under the constant application of cold-water compresses, and the case did remarkably well.

Two days ago an artificial eye was inserted, and the appearance of the patient was excellent; there was no sinking-in of the upper lid, and the movements of the eye are almost normal. As yet, the patient is only allowed to wear the eye for a short time each day. The appearance of the eye, the author remarked, was much more natural than could be attained by enucleation or optico-ciliary neurectomy, and it seemed probable that in his case all danger of sympathetic ophthalmia had been removed.

DR. MAJOR read a paper on

ADENOID GROWTHS OF THE NASO-PHARYNX.

He referred to the position advocated by Mr. George Stoker in operating. The patient's head should be on a

much lower level than the shoulders, so that the blood gravitates into and escapes by the nose. The reader of the paper also expressed his continued belief in the relations existing between nocturnal enuresis and mouth breathing. This opinion, first expressed in August, 1884, had since been confirmed by Dr. Ziem, of Danzic, and others. Dr. Magin stated that he had operated on 186 subjects for the removal of adenoid vegetations.

DR. BLACKADER said that since Dr. Major had drawn attention to the fact that enuresis and mouth breathing went together in children, he had closely observed many cases, and his experience did not go to confirm the observations of the reader of the paper. He had occasionally seen the two conditions associated, but the great majority of cases of enuresis observed were not in mouth-breathers.

DR. BULLER remarked that in the majority of cases operated on by him, he had found the fingers sufficient to remove adenoid growths from the naso-pharynx. The anæsthetic he found most convenient and least troublesome, was nitrous oxide gas.

DR. SHEPHERD reported a case of

SUBLINGUAL SEBACEOUS CYST,

in which he had recently operated. The patient was a girl aged nineteen years, who had first observed the growth some three years previously; latterly it had grown very rapidly, and projected considerably into the submaxillary space, causing an unsightly appearance. The girl had been several times insane, and once after the administration of ether, so no ether was given, but cocaine was injected into the skin beneath the maxilla. The cyst was opened in the mouth beneath the tongue, and it was the intention to pass a drain through the cyst and bring it out below the jaw. In pushing the dressing forceps through, it was found that the cyst wall was of considerable thickness, so it was seized through the opening made in the submaxillary region, and with occasional touches of the knife completely removed. The wound healed rapidly, and patient was well within a week. Dr. Shepherd remarked that this form of cyst was of considerable rarity and probably congenital. Being of slow growth, it was not noticed until sufficiently large to push up the tongue or to project externally. The cyst, as in the case narrated, usually contained inspissated sebaceous matter, which had much the appearance of putty. They were frequently mistaken for ranula.

DR. STEWART exhibited a case of

HODGKIN'S DISEASE.

The patient, a powerfully-built man, aged twenty-two years, first noticed enlargement of the glands on the left side of the neck ten months previously; the glands continued steadily to increase in size until the present time, when there was a very extensive infiltration on both sides of the neck and both axillæ. No other groups of glands were appreciably enlarged. Both liver and spleen normal in size. The patient was slightly anæmic, but there was no change in the absolute number of either the white or red blood cells, neither could any change in the size and shape of the red cells be determined. The patient had been taking for the past six months Fowler's solution of arsenic in considerable doses, but without any benefit.

CONGRESS OF THE GERMAN SOCIETY OF SURGERY.

Eighteenth Annual Session.
Held at Berlin April 24th to 27th, 1889.

(Specially reported for THE MEDICAL NEWS.)

(Continued from page 671.)

DR. ANGERER, of Munich, read a paper on

DIAGNOSIS AND OPERATION FOR PYLORIC STRICTURE.

He had made sixteen operations for pyloric stricture due to carcinoma or other diseases, which enabled him to make a few observations that may be useful in a diagnostic point of view. The first step is to find out if the tumor which is felt is united to the stomach or not; for this purpose he has produced an artificial inflation of the stomach by introducing bicarbonate of soda and tartaric acid, according to Ziemssen's method, or again, in filling up the stomach with air by means of a pump. By this process the contents of the distended stomach can be easily made out, and it becomes an easy matter to determine the seat and the relation existing between the tumor and the stomach. In the second place, we must determine whether the tumor is movable or if it is adherent to the neighboring organs. In palpating the tumor we do not find the exact location of the tumor. It is again the artificial inflation which gives us, in this respect, the needed knowledge on the subject; but we must be careful to mark with a colored pencil the contour of the tumor before and after the inflation; we must also not forget that normally the retracted pylorus is always displaced downward and to the right during insufflation of the stomach.

The adhesions of the tumor with the anterior wall of the stomach can be easily diagnosticated. The adhesions with the diaphragm and liver are recognized by the fact that the tumor takes part in the movements of these organs; these are a contra-indication to the operation. It is most difficult to determine an adhesion of the tumor to the pancreas. On a cadaver he has ligated the pylorus, fixing it at the same time to the head of the pancreas, and then produced an inflation of the stomach, and he had found that in those conditions the displacement of the pylorus was hardly apparent, but he observed a special inflexion of the stomach at the left of the pylorus. From a practical point of view he concluded that, after inflation of the stomach, if the tumor disappears, this indicates that its seat is on the posterior wall of the stomach; if the stomach remains immovable, we might admit that the stomach adheres to the pancreas, which is situated behind it. In such cases we must give up resection, but in performing gastro-enterostomy we may still be able to help our patients very much. He has made six times a typical resection of the pylorus; one of his patients, who was suffering from cicatricial retraction, is now in excellent health, and has been so for two years. Two of his operated patients died at the end of three weeks; three died within the first days after the operation; two died from collapse; one from peritonitis. In six cases he performed gastro-enterostomy; one of these patients, who was operated on several months ago, is now very much relieved. In another patient, a loop of the intestine was taken up by mistake in one of the sutures, and the patient died at the end of three weeks.

The other patients died a few days after the operation. Surgical interference in such cases would be more favorable if the operation were done earlier. Ether is preferable to chloroform in these operations.

DR. LAUENSTEIN, of Hamburg, said that we are quite unable to decide, in the majority of cases, what operation is to be performed, before laparotomy is done; whether we are to resect the pylorus, to perform gastrostomy, or gastro-enterostomy; for we do not know in advance whether we shall have to deal with a benign or malignant tumor. He has found that the preliminary washing out of the stomach diminishes the danger of collapse. In one case he observed the evacuation of fifty-four ounces of urine after the washing out of the stomach and the operation. Perhaps a part of the water thrown into the stomach is absorbed by the vascular system and fills it, so that we have an action which resembles the transfusion of a solution of common salt into the blood. If we do not admit that, in such conditions, the stomach can absorb water, we must admit, as an explanation for the abundant diuresis, that it is the result of a nervous excitation. As to the suture, he has given up silk, which has yielded him nothing but bad results. Out of nine patients on whom he performed gastro-enterostomy, two died immediately after the operation, seven lived for five to six months. In nine cases he excised the pylorus, five patients dying immediately after the operation. The results would certainly be much better, should we not allow the diseased condition to advance so far.

DR. SCHLANGE, of Berlin, then read a paper on

INTESTINAL OBSTRUCTION.

Two sets of patients who suffer from intestinal obstruction must be treated medically. They are: First, cases of obstruction due to peritonitis; secondly, cases of intestinal paralysis consecutive to an internal obstruction. For these two groups the medical treatment is preferable to the surgical treatment. The surgical intervention must be kept for any mechanical obstruction of the intestine, but in such cases the diagnosis must be established as soon as possible. Whenever we are able to distinctly palpate the intestinal loops, the abdomen being already swollen, the more right we have to suppose that the intestine is not yet paralyzed. The paralyzed intestine loses its rounded form, and then only do we observe the "barrel-shaped" abdomen. As long as paralysis does not reveal itself by this symptom, laparotomy can be performed without fear. But it is impossible to lay down general rules, for we must direct our steps according to the symptoms of each case. In a grave case of peritonitis, one operation only could be performed, and that is enterostomy, which could save the life of the patient. If we believe that the wretched state of patients is produced by the toxic ptomaines formed in the intestines, we must be sure to get them away, and, if necessary, to make several fistulæ instead of one, to obtain a complete elimination of the intestinal poisons.

DR. FISCHER, of Breslau, then read a paper on

TREPHINING FOR CEREBRAL TUMOR.

He related the case of a patient who, in 1880, suddenly developed epileptiform attacks, with paresis of the two arms. In 1887 he had aphasia and severe headache. The patient was trephined, but no tumor found. After the operation the patient's state was ameliorated, and the paresis of the arms disappeared. But, two months later, new epileptiform attacks set in, followed by paralysis of the upper extremities and the right foot, with violent headache. He then trephined again, and came across a tumor, which he immediately extirpated with his fingers; the wound was then packed. But, some time afterward, the patient again began to suffer from headache, and a tumor appeared at the point of trephining; the patient died comatose three months after the last operation. The tumor was a round-cell sarcoma.

PROF. HORSLEY recommended always the removal of a large piece of bone, so as to be more sure to fall upon the tumor. The tumor must be removed with the lancet, never with the curette or thermo-cautery. The essential part is to diagnose the seat of the tumor and its kind as early as possible. He did not admit the cure of cerebral syphilis by iodide of potassium. This is why he always resorts to trephining in cases of cerebral syphilis when, after a month's treatment by iodide of potassium, he obtains no result.

In Jacksonian epilepsy we often find cerebral lesions, and in such cases we must not use the internal treatment for a long time; it is better to resort to an explorating trepanning. In idiopathic epilepsy, with localized convulsions in certain regions, the cranium must be opened, the motor centre of the affected region found. The faradic current will help us to determine whether or no we are on the affected centre; if so, we should resort to incision immediately.

PROF. TRENDELENBURG, of Bonn, described the following method for the

CORRECTION OF NASAL OBLIQUITY

due to a fault in the osseous vault of the organ, and not in the septum: He first makes a bilateral incision, starting from the wing of the nose to the eyelid; secondly, an incision of the nasal bones, so as to immobilize them. The operation is a simple one, and gives satisfactory results.

DR. LAUENSTEIN read a paper on

TOTAL EXTIRPATION OF THE DISEASED CAPSULE OF THE ARTICULATION OF THE KNEE, WITH A PRESERVATION OF THE CROSSED LIGAMENTS.

He had operated by this method on a case of arthritis deformans of the knee, accompanied by fever and pains, a month ago; in the articulation he found rhiziform grains. Another patient, who was operated upon two years ago, has preserved good movement of the leg. The preservation of the crossed ligaments is for the purpose of saving the mobility of the joint.

PROF. KOENIG did not believe with Prof. Lauenstein, that the crossed ligaments of the knee play the important part he attributed to them, but we must feel ourselves fortunate to be able to cure a tuberculous arthritis of the knee, even if we must sacrifice the crossed ligaments.

DR. PETERSEN said that in a case in which, two years previously, he had extirpated the crossed ligaments, he found them in part reformed.

PROF. RYDYGIER presented two patients suffering from

RHINOSCLEROMA,

which is rare in Germany, but more common in Poland. This affection is constituted by a chronic inflammation,

cicatricial alterations, and nodular vegetation. This disease is due to a bacillus, cultures of which he presented. No curative treatment seems to exist for this trouble.

PROF. CREDÉ, of Leipzig, then read a paper on

THE SURGERY OF THE GALL-BLADDER.

He had made five operations on the gall-bladder during the past two years, every one terminating favorably. His first operation was made in two divisions, the others in one. If by detatching the gall-bladder from the inferior surface of the liver, a serious hemorrhage is produced, he does not hesitate to cauterize the liver with the thermo-cautery. He had observed that during convalescence his patient had a very surprising appetite and yet diminished in weight. A physiologist has observed the same phenomenon in dogs whose gall-bladder he had extirpated.

This great increase in the appetite is explained by the fact, that after the extirpation of the bladder, the bile flows continuously into the intestine, because there is no longer a reservoir which in the normal state throws an increased quantity of bile into the intestine during digestion. At this time there is, after the extirpation of the gall-bladder, not enough bile thrown into the intestine to produce an emulsion of the fats and render them absorbable, so that the greatest part of them passes out in the feces. After a time nature will replace the extirpated bladder by dilating the ductus choledochus, to form a sort of diverticulum, and then nutrition becomes normal again, for the fats can then be emulsified, and, consequently, absorbed.

The operations of the future, according to his experiments will be: The extirpation of the bladder if it is diseased. Ideal cholecystotomy, to take away the calculi which are in the way of the function of the bladder, while it is itself not diseased; the bladder is opened and the foreign bodies removed, the organ is then carefully sutured and returned into the abdominal cavity.

DR. THIEM had performed laparotomy on a patient to remove a tumor; when the extirpation was completed, he found in his way a second tumor, which on close examination proved to be the gall-bladder filled with calculi. He removed the organ, and the patient recovered rapidly and is well.

PROF. LANGENBUCH, of Berlin, thought it very difficult to lay down rules in regard to such operations, although he had made about twenty such operations. He insisted on the fact that we must not rely too much upon palpation as being a certain method to diagnosticate a dilated gall-bladder filled with calculi; the exploratory incision only will determine exactly with what kind of tumor we have to deal. In palpating this region, the external border of the large rectus muscle is apt to lead us into error in diagnosis. He operated on patients only in whom a disease of the gall-bladder is absolutely chronic, and who suffered for a long time from severe hepatic colics. In other subjects he prefers the internal treatment, which in many cases gives very good results. The statistics of such operations is not a very remarkable one or satisfactory as regards final results, but we still are unable to give a definite opinion on the subject.

The total number of cholecystotomies reported amount to 73 in number, with 11 cases of death, 46 complete cures, 16 incomplete cures, with a persistent biliary fistula. Out of 24 personal operations, 2 died from intercurrent disease—that is, 1 from disease of the brain, and the other as a result of the biliary calculi; of the 22 remaining cases, 2 have died as a result of peritonitis, the others were cured.

PROF. KUESTER said that whenever these patients have not been too stout, he had been able to make a correct diagnosis by palpation alone, without an exploratory incision. The ideal cystotomy, followed by buried sutures, deserves to be recommended.

PROF. LANGENBUCH said that an ideal cystotomy presents a very serious danger. The ductus choledochus reacts to any excitation in a very remarkable manner; this is the reason why this canal becomes swollen after the excitation caused by the operation, the tumefaction preventing the free flow of bile, there is a regurgitation of it, and the bladder fills up; finally, the sutures give way, and the bile is thrown into the peritoneum and the patient dies.

PROF. CREDÉ said that this danger is greatly reduced if for several days we have recourse to drainage, and only close the gall-bladder later, when the irritative phase has passed.

PROF. MIKULICZ, of Kœnigsberg, then read a paper on

THE SURGICAL TREATMENT OF PERITONITIS FROM PERFORATION.

To ameliorate the results of the operative treatment of purulent peritonitis from perforation, cases only must be operated upon in which the diagnosis has been correctly and clearly established, and those in which the physical condition is good. In regard to the certainty of diagnosis, the different cases must be distinguished according to the point of departure of the peritonitis; secondly, according to the clinical course of the disease. Two forms of peritonitis by perforation are observed, according to the clinical course of the disease. One of these is diffused from the first, and runs a very rapid course, is very acute, and could be called diffused septic peritonitis. In this case collapse occurs very early, and laparotomy performed on such dying patients is useless. In a second form of peritonitis by perforation, which he has named progressive fibrino-purulent peritonitis, chances of cure after laparotomy are very much greater. This form is recognizable by the fact that it involves only a very limited portion of the peritoneum, from from which it extends to the rest of the serous membrane. Physicians often reproach surgeons for destroying, in performing laparotomy, the barrier which nature has opposed to the extension of the inflammation, and for transforming in this manner a localized or partial peritonitis into a general or total peritonitis. This reproach is sometimes correct, and to prevent it we must be careful not to destroy the fibrinous adherences which form between the visceral and parietal layers of the peritoneum and the serous membrane of the loops of intestines. This is the reason why we ought to make as many isolated incisions as we have foci of inflammation separated from each other by adherences; the pus must be drawn separately out of each one.

He had made eleven laparotomies for peritonitis by perforation: the seat of the operation was five times in the ileo-cæcal appendix, with two cures; in the small intestine five times; in the stomach once. The two

cases of perforation of the cæcal appendix cured were typical cases of progressive fibrino-purulent peritonitis. In one of these patients he evacuated the pus from six isolated pockets by making three incisions; the intestinal loops adhering one to the other were left untouched. For several days the patients must be carefully watched, so as to immediately discover any new formation which might have been overlooked during the first operation. We can be assured of the good results of intervention only when there is no elevation of temperature.

In the first of his two cases there existed between the first and last incision an interval of two weeks. The first incision was made in the neighborhood of the seat of the perforation. After the evacuation of the pus he washed the cavity out with 75 per cent. of sodium chloride instead of using antiseptics. When we find the perforation immediately it must be sutured, but if it cannot be rapidly found we must not spend too much time in hunting for it. The washed cavities are filled with iodoform gauze, and without inserting any drainage-tube, the wound is closed with flying sutures, the object of which is to prevent a prolapse of the intestine during cough, vomiting, etc. The patients are then treated by opium, with the addition of a severe régime.

PROF. KŒNIG, of Gottingen, said that the most important of intestinal perforations are those produced by fire-arms. Up to date, American surgeons, especially, have had more often the opportunity to study such cases. They admit that eighteen hours after the wound has been inflicted death is certain, and that the treatment becomes useless. The prognosis is more favorable when the intervention is early. For his part he had had to treat six cases of perforations due to stab-wounds. In one case a workman received a stab-wound of the abdomen with intestinal perforation. He operated fourteen hours after the traumatism, and his patient was saved.

PROF. ROSENBERG said that in a case of peritonitis by perforation, which remained circumscribed, he had opened the abdomen, as directed by Mikulicz, and one purulent pocket after the other, without even washing them, and the patient was cured.

DR. WAGNER, of Kœnigshütte, said that in a typhoid fever patient who presented all the symptoms of perforation he performed laparotomy eight hours later, and the patient was cured. On the other hand, he had lost a patient who had had several traumatic perforations, but he was only able to interfere eighteen hours after the accident; he sutured three intestinal wounds. The patient died fourteen hours later from collapse.

DR. MANTEUFFEL, of Dorpat, said in regard to intestinal obstruction, when a loop of intestine a certain length becomes strangulated, the phenomena are somewhat different. It is not that part of the intestine situated immediately above the strangulated loop which distends itself; it is the loop itself, and its distention alone produces meteorism. There is another particularity which allows the diagnosis of strangulation of a large loop. In ordinary cases the intestine presents very pronounced peristaltic movements in the parts situated before the obstacle and which are in a distended condition; this, however, does not take place in the case to which he referred. The strangulated and distended loops present no peristaltic motion. In such cases laparotomy is preferable to enterotomy, which is practicable only if the occlusion is not too high up.

DR. STENZEL, of Dresden, had seen two patients who suffered from gastric ulcer, in whom the ulcer terminated in perforation. He operated; the ulcer was excised and sutured. Although these two cases terminated fatally, he thought that laparotomy is necessary in such cases, and that our incision must be made as large as possible.

PROF. MIKULICZ said that simple intestinal obstruction can be diagnosticated from intestinal strangulation by the fact that in occlusion the urine contains much indican; in strangulation only do we find albuminuria.

DR. LESER, of Halle, in a paper on

PRIMITIVE ACTINOMYCOSIS OF THE SKIN.

The usual seat for the development of actinomycosis is in some part of the respiratory or intestinal tract, yet he had observed three patients in whom the parasite of actinomycosis developed in the skin, without there being any other localization of the disease. In the first patient a great number of cutaneous ulcerations could be seen which resembled tuberculous lesions; yet from the depth of the ulceration one could find a thick cord which penetrated through the muscles to the bones; and, on the other hand, there was no adenitis. He had on several occasions curetted the ulcerations by penetrating as deeply as possible, and he cauterized freely; the disease recurred several times, but the patient was finally cured. The second patient appeared to have had acute septicæmia. The third resembled very much the first case. On microscopical examination of the matter from the ulcer one could find very easily the radiated fungi of actinomycosis, yet the balls were not quite round, but oval. The absence of ganglionic involvement and the presence of a cord extending down into the deep parts are of very great diagnostic importance.

DR. ROSTER, of Munich, did not think that such a form of actinomycosis is very rare; there are numerous examples of it in the scientific reports. In nearly all such cases the actinomycosis had developed on operative or traumatic wounds.

DR. KITASATO, of Tokio, Japan, read a paper on

PURE CULTURES OF NICOLAÏER'S TETANIC BACILLUS.

The first description of the bacillus of tetanus is due to Nicolaïer; it has been found in the ground, in the tetanic man, and pure cultures of this bacillus have never been obtained until now. A young soldier died from tetanus; in the pus obtained from his wound the bacillus of Nicolaïer was found. The inoculation of this pus in mice determined the appearance of true tetanus, and in those animals the characteristic bacillus has been discovered; but the cultures always failed, and only mixed cultures could be obtained. Studying these more closely, he found, beside Nicolaïer's bacillus, three species of facultative anaërobic microbes and seven species of facultative aërobic microbes, but none of them could produce tetanus. The tetanic bacillus is a true anaërobic bacillus. After having seen that the mixed culture obtained with the tetanic bacillus contains the greatest number of Nicolaïer's bacilli when it is maintained at a temperature of 97° F., he subjected it for some time to this temperature, and the culture being then in full development, he placed it in a water bath at 176° F. This temperature

kills all adventitious microbes, but allows the tetanic bacillus spore to live. After this partial sterilization, the plate culture is maintained at a temperature of 64° to 70° F., in an atmosphere of hydrogen. In this manner he succeeded in obtaining a pure culture of Nicolaïer's bacillus, with which he was enabled to produce tetanus in rats, guinea-pigs, and mice. The tetanus always propagates itself from the point of inoculation; the regions surrounding this point are always first affected. Nicolaïer's bacillus resists heat very well, and must be exposed for five minutes to a temperature of 212° F. to be killed. A five per cent. solution of carbolic acid does not destroy this bacillus in ten minutes. The most curious fact, however, is, that the bacilli disappear very rapidly in the blood; they apparently produce ptomaines, but this remains to be demonstrated.

DR. HOFFA, of Wurzburg, read a paper on

A NEW PTOMAINE.

Septic infection must be separated from septic intoxication. When we find numerous microörganisms in the blood, we may speak of septic infection, but in other microbian diseases the contrary is the rule; we do not find many microbes, these are very rare, and it is an exception if they are found. In those cases in which bacteria rapidly disappear from the organism, we naturally ask how is this accomplished? They kill by the ptomaines which they produce. He had poisoned a rabbit with bacilli from mice septicæmia, renewing Briéger's experiments, and after having killed it, and ligatured and extirpated the whole urogenital canal, as well as the digestive canal, so as not to extract septic products from these organs, he cut up the remaining rabbit into very small pieces, and worked the resulting mass according to Briéger's method. He isolated in that manner a base, methylguanidine ($C_2H_7N_3$), which is the same poison obtained by Briéger and Bochlisch with bacilli from Finckler-Prior. As methylguanidine is produced by oxidation of the creatine, he submitted to the same chemical analysis a healthy rabbit, who was sacrificed in the same manner as the rabbit killed by the bacilli. He found no trace of methylguanidine. This base is a very violent poison, and one-thirty-second of a grain is sufficient to kill a rabbit. It is this methylguanidine which is produced by the bacilli of the septicæmia of mice, and which kills those animals. Of the bacillus obtained from the spleen he had also isolated a toxic base, the formula of which is $C_3H_6N_2$, which is a different body from methylguanidine.

DR. CORNET, of Reichenhall, then spoke on

INOCULATION OF TUBERCULOSIS ON HEALTHY MUCOUS MEMBRANES.

He had inoculated in dogs Koch's bacillus, so as to be able to study the mechanism of infection which produces tubercular or scrofulous adenitis in man. His experiments had shown that the ganglia of the region through which the virus had penetrated are always involved first; this explains the frequency of tubercular cervical adenitis in man. The parts which surround the neck, the nasal and buccal mucous membranes, the ocular conjunctiva, and the ear, are favorable places for the penetration of the pathogenic germs into the tissues. The ganglia of the side corresponding to the infection are involved first, after which the glands of the opposite side are infected. His inoculations have given him positive results, not only when he had to deal with a spontaneously or artificially ulcerated mucous membrane, but even when he inoculated by simple friction on an intact mucous membrane.

(To to continued.)

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 6, 1889.

THE PRESIDENT, ALFRED L. LOOMIS, M. D., IN THE CHAIR.

DR. PRINCE A. MORROW read a paper on

PERSONAL OBSERVATIONS OF LEPROSY IN MEXICO AND THE SANDWICH ISLANDS, WITH MAGIC LANTERN ILLUSTRATIONS OF TYPICAL CASES.

He said that leprosy was too often looked upon as possessing only a historic interest, like the plague and other diseases of former times. Unfortunately, however, it could not with reason be so regarded. It was a living reality, and a map representing its geographical distribution showed that it extended over fully one-third the surface of the globe. This general distribution of the disease had, he believed, a very important bearing upon its etiology. It was impossible to give the exact number of lepers at present in the world, but in India alone there was fully 150,000. In Africa and South America it also prevailed extensively, and in Brazil there were said to be from 5000 to 10,000 cases.

The importation of leprosy from a country where the disease was endemic to one where it had previously been unknown, could always be traced to the agency of personal contact. In Central and South America it had been introduced by Portuguese traders, in Mexico by the Spaniards, in Canada by the French; and in Canada there were at the present day three distinct centres of the disease. In our own country, the leprosy met with could be traced to three or four separate sources. In Louisiana it had been introduced by the Acadians after their settlement there in 1758. In Iowa, Wisconsin, Minnesota, and Illinois, it had been introduced by Scandinavian immigrants; and in California and Oregon, by the Chinese. Quite a number of cases had also been met with in Charleston, S. C., and at Key West. Dr. Geddings had personally seen about 20 in Charleston. Dr. Morrow said that he had recently become acquainted with the hitherto unknown existence of the disease in Utah. He saw cases at Great Salt Lake City, and ascertained that it was introduced by natives of the Sandwich Islands who had been brought there by the Mormons.

His own personal observations began in New Orleans, where Dr. Blanc reported the existence of 42 cases last year, these being entirely independent of the lepers of the Teche River district of Louisiana. At various points along the line of the Southern Pacific Railway he also found the disease. In Mexico leprosy has existed ever since the time of Cortez, who established a lazaretto for the subjects of it. This continued in use until about thirty years ago, when it was abandoned; and since that time the cases have been cared for in the general hospitals, no attempt whatever to isolate them being made. Numbers of these people may be met

with in the streets of Mexico at any time. At San Francisco he saw quite a number of cases, six of them being in the pest-house there.

The Sandwich Islands probably offered the best field in the world for the study of leprosy, on account of the comparatively recent origin and the great prevalence of the disease there. We can trace there the influence of certain factors, such as race, climate, environment, etc. Segregation has been secured by the establishment of an isolated leper settlement, and there are now more than 11,000 cases at Morlachi.

It has been regarded as a reproach upon medical science, that so little should really be known of a disease which has existed for so long a time and extended so widely; but it is only within the last twenty-five years that the true character of leprosy has been ascertained. We now know that it is a parasitic disease, and the lepræ bacillus, discovered about the year 1870, by Hansen, presents certain analogies to the tubercle bacillus. This is particularly true as regards its remarkable vital tenacity. Like all specific microbes, it has an elective affinity for certain fluids and tissues of the body. It is met with especially in the mucous membranes, the lymph glands, the liver, the spleen, the testicles, and the connective tissue of the peripheral nerves. It is absent from the blood, the urine, and the physiological secretions, though it is well known that when the lesions of the mucous membrane of the nose break down it is abundant in the nasal secretion. It has been questioned whether it is found in the pathological secretions, but there can be no doubt that it abounds in the vaccinal fluid.

As regards the origin of leprosy, it can be stated positively that the disease never originates spontaneously. It does not attach to the soil, water, or food, but is always communicated from one individual to another, and can always be traced to personal contact. Its period of incubation is a long one. This is variously stated as from three to five years, but in certain instances seems to be from ten to fifteen years. It is a very difficult matter to arrive at the exact period of incubation, because there is no initial lesion and the prodromal symptoms are very indefinite. The progress of the disease is slow, but it almost invariably terminates fatally.

There are certain moot points in regard to the disease, and the first one is as to its contagiousness. This has never been at all questioned until comparatively recent times; but about thirty years ago it began to be doubted. In 1867 the Royal College of Physicians of London made the public declaration that leprosy is not contagious. Ten years ago it is probable that the majority of the medical profession did not accept contagiousness, and so recently as 1885, when the subject was under discussion, there were only three men in the French Academy of Medicine who upheld the doctrine of its contagiousness. When the matter was brought up again in 1888, however, it was proved that quite a number of the leading authorities had accepted this. It is worthy of note that the leading dermatologists of New York have never given assent to the heresy of the non-contagiousness of leprosy.

The history of the disease in the Sandwich Islands affords the most conclusive proof of its contagiousness. In no other way can the rapid spread of the disease throughout the race be accounted for; and at the present day from 5 to 10 per cent. of the native population may be considered lepers. In investigating the disease there one can get at a history of personal exposure in almost every instance. At the leper settlement many of the patients are incapacitated from taking care of themselves, and have to have relatives or friends to look after them who are personally free from the disease when they go there. It has been observed that a very large number of these attendants after a time contract the disease; and the official reports show that out of sixty-six such individuals who were free from leprosy in 1888 twenty-three were found to have it when the next visit was made to the settlement later. Again, it is a well-known fact that a considerable number of foreigners who have lived in the Sandwich Islands have contracted leprosy.

As to the modes of infection, our knowledge is not positive, but in a large number of cases this is probably by sexual intercourse. It seems probable that the disease may be contracted through abrasions of the mucous membrane or skin, and also by means of animal parasites or the bites of mosquitoes and other insects. In the Samoan Islands elephantiasis Arabum has attained a more marked development than in any other part of the world, while elephantiasis Græcorum is unknown; and in the Sandwich Islands, where the latter is so prevalent, elephantiasis Arabum is unknown. In Mexico, however, both forms of the disease are found. In the Sandwich Islands vaccination has undoubtedly been one of the causes of the spread of leprosy, humanized virus being used, and no distinction being made between healthy and unhealthy subjects in procuring the virus. Inoculation of leprosy has been successfully practised in one instance, the subject being a condemned criminal. Dr. Morrow said he had seen one case in which the patient claimed to have contracted the disease from the bite of a leper, and another in which the patient stated that it came from the prick of a pin with which a leprous boy had amused himself by sticking it into his body.

Another moot question is that of heredity. Formerly this was regarded as positively established, and in all ages it has been regarded as the principal cause of the disease. In his personal observations, however, Dr. Morrow said that he found no proof whatever to support the view of heredity. A predisposition to leprosy might be transmitted, as in the case of tuberculosis; but he did not believe that the actual germs of the disease are ever so transmitted. There is not a single case of congenital leprosy on record. In instances of suspected heredity, the child never shows evidences of the disease under the age of three years, and usually not until puberty. In general, the disease develops only in those from thirty to fifty years old. Leprosy, then, is either analogous to late syphilis, or else it is not transmitted at all to offspring. Observation shows that the children of lepers do not become infected unless they are kept in close contact with their parents. Very few living children are born in the lepers' settlement. For some years there were only two; and of twenty-six infants that lived, the report of 1866 shows that nine presented evidences of the disease between the ages of three and fourteen years, while the remainder had continued absolutely exempt from it. It is altogether probable, therefore, that in all cases of suspected heredity the disease is really due to post-natal contagion.

Dr. Morrow then gave an exhibition upon the screen

of a large number of photographs which he had collected in the Sandwich Islands, and in connection with these referred to the different forms of leprosy, and gave a sketch of its clinical history. Among the photographs was one of the late Father Damien, taken only six weeks before his death, and one of the convicts upon whom inoculation was successfully practised—the only case on record. This man, who had been condemned to death, was given his choice between execution and imprisonment for life with inoculation with leprosy. With the criminal's written permission, Dr. Arning inoculated him in September, 1884. Bacilli were found in numbers about the inoculated spot until March, 1885, after which they gradually diminished in number. For several years the result was regarded as negative; but more recently, evidences of infection have developed, and at the present day there can be no question of his having well-marked leprosy.

As to the practical danger of the spread of leprosy in this country he believed that such a danger undoubtedly exists. He said that the disease in its present state here might be compared to a conflagration which could easily be extinguished at first, but which, left to itself until it had gained a certain headway, could not be subdued until after all the material it had to feed upon had become exhausted. In the Sandwich Islands, in 1848, there were but few cases of leprosy, and for twenty years the Government paid no attention to the disease. By that time there were about 250 cases, and the authorities, becoming alarmed, took stringent measures for its repression. A system of segregation was adopted, but, unfortunately, the danger was appreciated too late. Dr. Morrow said he did not believe that a calamity such as had overtaken the Hawaiians was in store for this country; but, at the same time, he thought there was a sufficiency of leprous seed here to stock this or any other country. The only question was whether the soil was favorable for the development of the disease. Any one who believes in the contagiousness of leprosy must assume either that a great danger menaces us, or else that the conditions of our civilization are not favorable for the spread of leprosy.

Dr. Morrow said that in his opinion the danger was not such as seriously menaced the public health, as the disease would spread very slowly, if at all. At the same time it should be borne in mind that leprosy is a disease in which the resources of medical science prove altogether futile, and measures should, therefore, be taken to stamp it out. It is probable that there are more cases in this country now than ever before. The report of 42 cases in New Orleans last year was a surprise to every one, and the propriety of legislative enactment for the suppression of the disease is unquestionable.

DISCUSSION ON THE DANGERS TO BE FEARED FROM THE SPREAD OF LEPROSY IN THE UNITED STATES.

DR. C. W. ALLEN said that his convictions on this question were very decided. Two years ago, in a paper read before the Medical Society of the County of New York, he had contended that lepers should not be admitted into this country, and that those already here should be segregated. There were at the present time, as has been stated by Dr. Morrow, many more lepers in the United States than ever before. Two years ago he had placed the number at 250. This number, he had reason to believe, was too small at that time, and he thought there could be no doubt that there had been a considerable increase since then. When we considered the large number of cases all about us, and the increased likelihood of the spread of the disease from the increasing facilities of modern travel, etc., this question became one that we could no longer shut our eyes to. It was true that thus far very few cases had developed here (almost all being imported from other countries), yet some instances had been reported by Dr. Bulkley and others. Of the 42 cases reported in New Orleans, where no leprosy was supposed to exist, 29 were natives of Louisiana, and 22 of the city of New Orleans. One of these had been a nurse in a hospital where a leper was under treatment for some time. The evidences of the contagiousness of the disease were positive, and as long as a single leper existed anywhere he would constitute a source of danger to those about him.

DR. L. DUNCAN BULKLEY said he regarded this as one of the most important questions ever brought before the Academy. He thought no one could fail to see that whenever leprosy has been allowed free scope it has spread; while, on the other hand, whenever proper measures have been taken in time against its spread, it has been exterminated. There seemed to him a propriety in having the matter agitated, and he thought the least the health authorities could do would be to ascertain the number and condition of the lepers now in this country. He also thought it would be well for the Academy to further discuss the question of the possible spread of the disease and the best means of preventing this. About twenty years ago he saw in the New York Hospital a very bad case of leprosy. There was no cause for it, so far as he knew, and the patient was a man of cleanly habits. Since then he had seen two or three cases every year in New York. He had met with one case in a patient who had never been many miles from Poughkeepsie, where he lived, and another in one who had never been far away from New York. Precisely how they contracted the disease he did not know, but there could be no question that they had derived it from antecedent cases. Leprosy always comes from leprosy. He differed from Dr. Morrow, however, in the opinion that the bacillus lepræ does not exist in soil, water, etc., and believed that it may be left there, like other disease germs. In conclusion, he said he thought it well to appoint a committee to report on the question under discussion at some future time.

DR. GEORGE H. FOX said that the exciting of alarm seemed to him objectionable on account of the false assumption that there has been a spread of leprosy in this country. The cases met with here were nearly all imported, and in spite of the fact that there was no law prohibiting the entrance of lepers, and that no segregation was practised, he believed that the number was at present undoubtedly smaller than at other periods. Some of the cases formerly here had died, and others had left the country. He also knew of one case at least in which the patient considered himself cured; no signs of the disease having appeared for six years. He admitted that there was a slight danger from the lepers still remaining here; but so there was, he said, from hydrophobia. As a rule, the whites of the Sandwich Islands were free from leprosy, and he had yet to learn of an instance of

the spread of the disease in a white civilized country. Its prevalence among the Hawaiians, he believed, was in great part attributable to their uncleanly habits and mode of living. The danger was, of course, greater, the greater the number of lepers; but it was very rare for nurses, sisters of charity, and others in constant attendance upon leprous patients, to contract the disease. All lepers, he thought, should be prevented from landing here, as the paupers were, not so much from the likelihood of their spreading the disease, as because, like paupers, they would be a burden on the community. The popular dread of this disease was unfounded and absurd, and even physicians shuddered at the name of leprosy, while they looked with complacency upon syphilis and tuberculosis.

DR. H. G. PIFFARD said that ten years ago he had read a paper before the Academy in which he discussed the question raised to-night. The points for which he contended at that time were, *first*, the contagiousness of the disease; *second*, the segregation of lepers; *third*, that it was the function of the National Government to attend to the matter. Since then his views had not altered. At that meeting a committee was appointed from the Academy to investigate the subject of leprosy in this country, and the committee so appointed performed the work required of it so far as it was possible to do so. It did not succeed, however, in tracing out more than forty or fifty cases in the United States. Many cases unquestionably escaped observation, and there was no doubt in his mind that at the present time there are at least five times as many lepers in the country as there were then. That segregation was necessary was shown by the fact that wherever this has not been practised the disease has increased, not in arithmetical, but geometrical progression. To the question, Whose charge is it to attend to this segregation? he would answer, The National Government. The Government should, in the first place, prevent the entrance of all lepers into the country; and, secondly, induce, as far as possible, all lepers now here to go to properly-appointed lazarettos. It should be the duty of each State to place its own lepers in these lazarettos.

Whether this discussion could have any practical effect he doubted very much. Not until the necessity of taking active measures to prevent the spread of leprosy forced itself upon public attention would anything be done, but that time, he believed, would surely come sooner or later.

DR. F. R. STURGIS said that he believed that Dr. Morrow was right in stating that there was no immediate danger to the public health from this source, but that it was undoubtedly the duty of the medical profession to call attention to the matter. Up to the present time the evidence of direct inoculation with leprosy had been lacking; but the case of the criminal referred to by Dr. Morrow really seemed to show the possibility of inoculation and further confirm the contagiousness of the disease. It was probable that leprosy followed a course similar to that of syphilis; being, more contagious in its earlier than its later stages. As to the bacillus mentioned, he did not think it had been as yet proved to be the cause of the disease, any more than was the case in regard to the so-called bacillus of syphilis. Dr. Fox depended on negative evidence for the position which he assumed; but one positive case was of greater value than all such negative evidence. In our crowded and filthy lodging-houses he believed that there existed all the conditions favorable to the development of leprosy if the contagion was once introduced. As to the comparative risk from leprosy over syphilis, he said he would rather run his chances with the latter, as there was, so far as he knew, no cure for leprosy. Syphilis might be ten times more contagious than leprosy, but leprosy was ten times as dangerous.

DR. ROBERT W. TAYLOR said that every year he saw from one to three cases of leprosy, principally at Charity Hospital. He believed the danger of serious trouble from the disease was remote, and he was therefore inclined to take a more hopeful view of the future than some of the speakers.

DR. MORROW, in closing the discussion, said there seemed to him but little doubt that the leprosy in the case of the criminal mentioned was positively caused by the inoculation. This was made in 1884, and the four years that elapsed before leprosy made its appearance corresponded entirely with the ordinary incubation period of the disease. It was an important fact, he thought, that the spread of leprosy in the Sandwich Islands had occurred under conditions of high civilization, the state of the population being greatly superior to what it was fifty years before. Dr. Fox labored under a misapprehension in regard to the people there, who are in reality infinitely better off than the great majority of the poorer classes in this country. For one thing, they are very cleanly in their habits and are accustomed to bathe four or five times a day. Yet, notwithstanding their improved condition, the scourge of leprosy had attained the most fearful proportions among them.

In regard to the contagiousness of leprosy, there was one point which offered a possible explanation of the difference of opinion which had existed concerning it. He thought it extremely doubtful if the anæsthetic type of leprosy was capable of transmitting the disease. It was this form, rather than the tubercular, which predominated in India and in Mexico to-day, and in this the bacilli are not found in the external lesions. To his mind the evidences of contagiousness abounded and superabounded. He did not wish to be considered an alarmist, but in regard to this disease he believed that a wholesome dread was better than a false security. By the adoption of active measures he thought it could be stamped out absolutely.

At the conclusion of his remarks Dr. Morrow exhibited under the microscope specimens of the bacillus lepræ which had retained their vitality for a very long period.

NEW INVENTIONS.

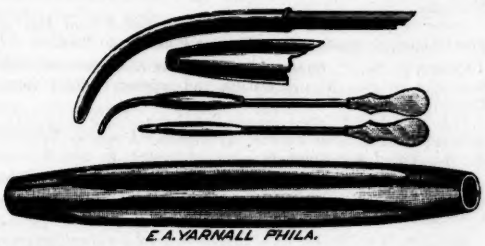
GROOVED BOUGIES FOR APPLYING OINTMENT TO THE URETHRA AND INTERIOR OF THE UTERUS.

BY J. NEELY RHOADS, M.D.,
CHIEF OF CHILDREN'S CLINIC, JEFFERSON MEDICAL COLLEGE HOSPITAL, PHILADELPHIA.

FOR the past two or three years I have been using different ointments on bougies in the treatment of gonorrhœa of long standing and chronic urethritis. The results obtained were generally negative, owing, I think, to inadequate instruments, for the contraction of the

meatus renders it next to impossible to reach the desired parts with the salve on the ordinary bougie or sound, the salve remaining in a large ring around the bougie at the handle upon withdrawal. And the cupped sound contains such a small number of cavities and are arranged so that the urethra is only touched with the ointment in spots in a haphazard way, and being made larger at the handle than at the cupped portion, gives so much pain, due to stretching of the meatus, that it must be withdrawn before the parts are properly reached or the salve dissolved. The ribbed bougie and catheter are subject to the same meatus-stretching objection. The syringe in use for carrying ointment is very inaccurate in its application, and is not, precisely speaking, an ointment-carrier, as ointments must be semiliquid or they cannot be used.

Last fall I had several three-inch bulbs made, such as are used in my pocket-set,[1] deeply grooved on four sides, as shown full size in accompanying cut, and have used



them since with gratifying results. I gave several sets of these to my friends, who speak of them very highly, reporting cases of urethritis cured or benefited, both acute and chronic, specific and non-specific, occurring in both sexes. Several cases of cervical endometritis are also being treated by this method.

I have cured several cases of chronic gonorrhœa of long standing in the male by applying the following ointment to the grooved bulbs:

℞.—Argenti nitratis . . . . gr. x.
Tr. benzoin comp. . . . gtt. xv.
Unguenti petrolii . . . ℥j. —M.

Making two or three applications per week. After applying the salve I insert the bougie in the ordinary manner, using either the straight or the curved point—preferably the straight. After the bulb passes the meatus I watch the patient's face, ascertaining by the facial expressions which are the most sensitive parts, and then allowing the instrument to remain in such a position that they shall be perfectly anointed.

Now the advantage claimed for this instrument over other ointment-carriers is the operator's ability to locate by it the exact sensitive or diseased spot of the urethra, for, be it remembered, after the bulb of this instrument passes the meatus (the most sensitive part of the normal urethra) the passage is painless if the urethra be not inflamed; hence, the moment the patient flinches we know beyond a doubt that we have reached the diseased part. I have frequently allowed a bulbous bougie of large size to remain in position for ten and even fifteen minutes, the patient walking around my office perfectly unconcerned. We do not expect this instrument to cure every urethritic or endometritic disease, but do hope it will find a useful place as a salve-carrier.

1612 SOUTH SEVENTH ST.

[1] Described in THE MEDICAL NEWS July 10, 1886, p. 54.

NEWS ITEMS.

Proposed Amendments to the Constitution of the American Medical Association.—The following proposed amendments will come up for action at the Newport meeting of the Association.

Amendment proposed by Dr. N. S. Davis, of Chicago:

"The General Committee shall be composed of two members from each State and Territorial Medical Society entitled to representation by delegates in the Association, and from the Medical Departments of the U. S. Army, Navy, and Marine-Hospital Service. They shall be chosen by the members registered and present at each annual meeting from each State and Territory, and from the Medical Corps of the U. S. Army, Navy, and Marine-Hospital Service, acting separately, on the third day of each annual meeting; each delegation reporting the names of the members chosen to the Permanent Secretary of the Association on the same day, that they may be announced by him at the opening of the morning session of the fourth day. At the first election each delegation shall choose two members of the General Committee, one of whom shall serve one year, and the other two years, and at each annual election thereafter one member shall be chosen to serve for two years, thus making the term of office of members of the General Committee two years. It shall be the duty of the General Committee thus constituted, to organize by choosing annually a Chairman and Secretary, and such sub-committees as may be found necessary to facilitate the work that may be assigned to it; to meet annually at the place and on the day preceding each annual meeting of the Association, and as often during that week as may be necessary; to nominate, on the third day of each annual meeting, all the general officers of the Assocation (none of whom shall be members of its own body), the members of the Committee of Arrangements, the Committee on Necrology, seven members of the Judicial Council, and three members of the Board of Trustees for Publication, for election by the Association; to recommend the place and time of holding the next annual meeting; and to consider and report upon all subjects that may be referred to it by vote of the Association. The presence of one-third of the whole number of members elected to the General Committee shall constitute a quorum for the transaction of business. If, at any annual meeting of the Association, it shall be found at the close of the general meeting of the first day that a quorum of the General Committee is not present, it shall be the duty of the President and Permanent Secretary to fill the vacancies in the Committee temporarily, by selections from the lists of delegates registered as present from the States to which the vacancies belong."

Should this provision be adopted by the Association, the Permanent Secretary should be authorized to substitute the name "General Committee," "for Nominating Committee," wherever the latter occurs in other parts of the Constitution and By-Laws.

Amendment offered by Dr. J. M. Keller, of Arkansas:

"To change the By-Law whereby the officers of the Sections are elected by the Sections."

Amendment offered by Dr. N. S. Davis:

"Strike out the last clause of paragraph VII., relating to individually affixing names to the Constitution and Regulations of this Association."

Amendments offered by Dr. H. N. Moyer, of Illinois:

"There shall be created a Section of Pharmacy and Materia Medica, which shall have its own autonomy, in like manner as the Section in Dental and Oral Surgery. Reputable members of the State Pharmaceutical Associations shall be eligible as members of the same on presentation of credentials from their State Secretary, but shall have no voice in the general sessions of the Association.

"The Section of Surgery shall hereafter be denominated the Section of Surgery and Gynecology.

"There shall be created a Section of Anatomy and Physiology.

"The Section of Obstetrics and Diseases of Women shall be abolished.

"The Section of Diseases of Children shall hereafter be denominated the Section of Obstetrics and Pædiatrics.

"The Section of Dermatology and Syphilography shall hereafter be denominated the Section of Dermatology and Genito-urinary Diseases.

"The Section of Medical Jurisprudence shall hereafter be denominated the Section of Mental and Nervous Diseases.

"The Section of State Medicine shall hereafter be denominated the Section of State Medicine and Medical Jurisprudence.

"The Section of Practice of Medicine, Materia Medica, and Physiology shall hereafter be denominated the Section of Internal Medicine."

Cigarette Selling in New York.—The smoking of cigarettes by boys is likely to undergo a wholesome restriction in the State of New York. The *New York Medical Journal* of June 8, 1889, tells of a law having been enacted by the last Legislature, making it a misdemeanor for dealers to sell cigarettes or any form of tobacco to persons under sixteen years of age. A police order was promulgated on May 31st, giving effect to this enactment.

Leprosy in Russia.—Leprosy, says the *Provincial Med. Journal*, June 1, 1889, is on the increase in Russia. During the last ten years forty-nine patients were treated in the St. Petersburg hospitals, half of whom were natives of the city. The Baltic provinces suffer most from the disease.

Corrigendum.

In foot-note, page 630, *for* "alcoholic tincture of benzine," *read* "tincture of benzoin."

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING JUNE 15, 1889.

NORTON, O. D., *Assistant Surgeon.*—Ordered to the Naval Hospital, Chelsea, Massachusetts.

HALL, J. H., *Passed Assistant Surgeon.*—Detached from the Naval Hospital, Washington, D. C., and granted six months' leave to go abroad.

LEWIS, D. O., *Passed Assistant Surgeon.*—Detached from the Naval Academy, and ordered to the Hospital, Washington, D. C.

BRIGHT, GEORGE A., *Surgeon.*—Detached from the Navy Yard, Norfolk, Va., and wait orders.

MARMION, R. A., *Surgeon.*—Detached from the Receiving-ship "Franklin," and ordered to the Navy Yard, Norfolk.

BERTOLETTE, D. N., *Surgeon.*—Ordered to the Receiving-ship "Franklin."

KIDDER, B. H., *Medical Inspector.*—Ordered to the Naval Academy, Annapolis, Maryland.

WALTON, T. C., *Medical Inspector.*—Detached from the Naval Academy, and ordered to the U. S. S. "Chicago."

BEYER, H. G., *Passed Assistant Surgeon.*—Ordered to the Training-ship "Portsmouth."

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 11 TO JUNE 18, 1889.

By directions of the Acting Secretary of War, the following changes in the stations of officers of the Medical Department are ordered:

HARTSUFF, ALBERT, *Major and Surgeon.*—Is relieved from duty at Fort Hamilton, New York, and ordered to Fort Omaha, Nebraska.

BROWN, J. M., *Major and Surgeon.*—Relieved from duty at Fort Omaha, Nebraska, and ordered to Fort Meade, Dakota.

SHANNON, W. C., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Meade, Dakota, and ordered to Fort Yates, Dakota.

IVES, FRANCIS J., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort D. A. Russell, Wyoming, and ordered to Fort Lyon, Colorado.

PHILIPS, J. L., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Lyon, Colorado, and ordered to Fort Crawford, Colorado.

MCCAW, WALTER D., *First Lieutenant and Assistant Surgeon.*—Relieved from duty at Fort Crawford, Colorado, and ordered to Fort McPherson, Atlanta, Georgia.—Par. 9, *S. O. 136, A. G. O., Washington, D. C.*, June 13, 1889.

GANDY, CHARLES M., *Captain and Assistant Surgeon.*—Upon the abandonment of the post of Fort Concho, Texas, will report in person to the commanding officer at Fort Clark, Texas, for duty at that station, to relieve Ogden Rafferty, First Lieutenant and Assistant Surgeon, reporting also by letter to the commanding general Department of Texas. Lieutenant Rafferty, on being relieved by Captain Gandy, will report for duty to the commanding officer San Antonio, Texas, reporting also by letter to the commanding general Department of Texas.—Par. 7, *S. O. 133, A. G. O., Washington*, June 10, 1889.

GIBSON, ROBERT J., *Captain and Assistant Surgeon* (Fort Trumbull, Conn.).—Is designated as Medical Officer for the encampment at Fisher's Island, New York, and he will proceed to Fisher's Island, New York, August 1, 1889, and will report to the commanding officer for duty at that post.—Par. 5, *S. O. 133, Headquarters Division of the Atlantic*, June 13, 1889.

By direction of the Acting Secretary of War, PHILIP G. WALES, *First Lieutenant and Assistant Surgeon* (recently appointed), will proceed from this city to the Presidio of San Francisco, California, and report for duty to the commanding officer of that post, reporting also by letter to the commanding general Division of the Pacific and Department of California.—Par. 3, *S. O. 132, A. G. O.*, June 8, 1889.

TEN EYCK, BENJAMIN L., *First Lieutenant and Assistant Surgeon* (recently appointed).—Will proceed from New York City to Fort Leavenworth, Kansas, and report for duty to the commanding officer of that post.—Par. 2, *S. O. 138, A. G. O., Washington, D. C.*, June 15, 1889.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked.

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